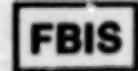


JPRS-TEP-87-008

7 APRIL 1987

**Worldwide Report**

**EPIDEMIOLOGY**



**FOREIGN BROADCAST INFORMATION SERVICE**

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JPRS-TEP-87-008

7 APRIL 1987

WORLDWIDE REPORT  
EPIDEMIOLOGY

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CANADA

AIDS INCIDENCE, FUNDING, UNDERTAKERS' CONCERN DISCUSSED

917 Cases

Ottawa THE OTTAWA CITIZEN in English 27 Feb 87 p A3

[Text]

TORONTO (CP) — A Roman Catholic priest says he is infuriated by the Vatican's rigid stand against homosexual acts and the church's slowness in responding to the needs of AIDS sufferers.

Rev. Stephen Manning, 38, a Dominican priest who works for the Toronto AIDS Committee, has reacted with anger to a letter written by the Vatican condemning a homosexual act as "an intrinsic moral evil."

The letter, written by Joseph Cardinal Ratzinger on Oct. 1, 1986, and approved by the Pope, says a chaste homosexual is permitted to be a member of the church and refers to homosexuality as "a proper focus for the church's pastoral care."

"It is an ignorant, malicious, cruel, nasty piece of work," said Manning, a homosexual. "It makes it even more difficult for Catholic people with AIDS."

Manning also said the letter blames the homosexual community for AIDS and for an increase in violence directed at its members. The Vatican letter does not mention acquired immunodeficiency syndrome, but refers to it in what Manning calls a code.

In reference to violence, it says "neither the church nor society at large should be surprised when other distorted notions and practices gain ground, and irrational and violent reactions increase."

Figures from Health and Welfare Canada indicate the risk of AIDS is growing.

As of Monday, 917 Canadians had contracted the disease, of whom 476 have died. The overwhelming majority of the Canadian cases were traced to gay or bisexual contact by males. No Roman Catholic priests have been identified among the Canadian AIDS victims.

## Call for Bigger Budget

Toronto THE TORONTO STAR in English 2 Mar 87 pp A1, A4

[Article by Joel Ruimy]

[Text]

OTTAWA — The federal government should double the \$39 million it has earmarked to fight AIDS over the next five years, a coalition of community groups working with victims of the disease says.

And Ottawa should enlist the help of homosexual community groups who have been dealing directly with the disease for the last four years, the coalition told a news conference yesterday.

"We are looking at statistics that are really frightening," Ottawa physician Gilles Melanson told reporters following a three-day closed-door meeting of the Canadian AIDS Society.

As of last Monday, 917 cases of acquired immune deficiency syndrome have been reported to the National AIDS Centre in Ottawa. Of these, 476 have died. In Ontario, of 349 cases reported, 182 have died.

Society chairman Michael Phair of Edmonton said that the 24 groups in the coalition, operating in 19 major Canadian cities, got a total of just \$700,000 from the federal government in the past year.

Beginning April 1, the groups will get another \$1 million a year for the next four years.

"That should be doubled or tripled," he said, adding that annual federal spending on AIDS should rise to as much as \$15 million from the current \$8 million.

Along with the \$4.7 million already earmarked for community groups, Ottawa plans to spend another \$7 million on a public education campaign over the next five years. The rest goes to medical research, blood-testing programs and AIDS-related activities of the federal health department.

Health Minister Jake Epp has said he would be prepared to increase the AIDS budget after Ottawa has assessed the success of programs, which have only recently come into effect.

"It has been doubling every nine months," Phair said of the number of reported cases. "Efforts have been made, well-meaning, by people who don't have the expertise."

Ottawa, he added, has failed to "recognize, consult with and use the years of experience and expertise already gained by society members." Instead, it has been "trying to re-invent the wheel."

"Our primary message to the federal government is that from our perspective, no co-ordinated national strategy for the education, promotion and prevention of AIDS in Canada yet exists.

"Failure to act on the things we see as problems means lost time in preventing the spread of AIDS and thus, more Canadians will be affected."

AIDS is a virus that ravages the body's immune defences and leaves the victim susceptible to several fatal diseases.

Nearly 500 of the 917 reported cases — the vast majority of them homosexual men and intravenous drug users who use contaminated syringes — have died since the disease was first reported in Canada six years ago.

But federal health officials, fearing the disease is spreading to heterosexuals, have promised an education campaign to alert people to ways they can avoid putting themselves at risk.

## Undertakers' Concern

Toronto THE TORONTO STAR in English 3 Mar 87 p A7

[Text]

HAMILTON (CP) — Funeral directors in the Hamilton area want the region's medical officer of health to clarify remarks he made about falsifying death certificates of people with AIDS.

And one funeral director said he has written Health Minister Murray Elston to ask for Dr. Ian Cunningham's resignation.

"I tend to think his effectiveness as medical officer of health has been diminished," said Jim Jeffrey, director of the L.G. Wallace funeral home in Hamilton. "I think he should be replaced."

Wallace said Cunningham, who last week said he supports concealing the cause of death on a death certificate if the patient died of acquired immune deficiency syndrome (AIDS), has reneged on his responsibility to uphold health standards in the community.

"The only indication we have of what we're dealing with is the medical record," the funeral director said. "If it's falsified, then it's dangerous. It alarms me the region's protector of health is acting irresponsibly."

Henry Sieders, president of the Hamilton and District Funeral Service Association, said the group has written Cunningham asking him to verify comments attributed to him and to indicate whether he stands by them.

"We would like to see if he would maintain the law as spelled out and if he would put down the actual cause of death," Sieders said.

Funeral home directors are

worried about the health and safety of staff, their families and the public, Sieders said.

AIDS is passed by such fluids as blood and sperm. The sexually active and drug users who share needles are deemed most at risk from the so-far fatal disease, which disables a person's immune system, so it cannot fight infection.

As of yesterday, 917 cases of AIDS had been reported to the National AIDS Centre in Ottawa. Of these 476 have died. In Ontario, there are 349 cases reported, and of these 182 have died.

Cunningham, in stating his support for not attributing a death to AIDS, said a person's need to protect his honor is greater than the public's right to information.

Cunningham apologized for his remarks at a health and social services committee meeting late last week but Sieders said that's only the doctor's first step in clearing up confusion about where he stands on the issue.

In Canada and the United States, some families of patients with AIDS have had trouble finding funeral parlors to handle the bodies.

Dr. Carmelo Scime, a local physician and coroner, said he is appalled by Cunningham's comments.

"Here we have the person in charge telling us not to tell the truth, to purposefully deceive. That's wrong," Scime said.

He said extra precautions are taken by morgue and funeral home staff whenever death is caused by a contagious disease.

/9317  
CSO: 5420/17

## SHARP RISE IN MEASLES CASES REPORTED FOR 1986

Toronto THE TORONTO STAR in English 4 Mar 87 p D26

[Text]

**OTTAWA (CP)** — The fight against measles suffered a major setback last year as the number of confirmed cases shot up to 15,136, says a new federal survey.

The total is up sharply from the 2,816 cases reported in 1985 and made 1986 the worst year for measles since 1979.

The survey was carried in the latest issue of The Canada Weekly Diseases Report, published by Health and Welfare Canada. The measles statistics were collected by federal officials with the help of their provincial counterparts and Statistics Canada.

An accompanying statement in the report said that the type of vaccines used in years past, improper storage of vaccines and the failure to identify and immunize unprotected youngsters all contributed to the problem.

Cases of the disease were reported in all provinces and territories, but outbreaks were especially severe in British Columbia, Manitoba and Nova Scotia.

British Columbia had a total of 7,148 reported cases during 1986. Manitoba had 3,449 cases and

Nova Scotia 1,443.

Ontario had 1,236 cases — not a large figure for the province's population.

Only Ontario, Manitoba and New Brunswick have compulsory vaccination programs for children entering school.

The vast majority of the people who got measles last year were children or young adults between the ages of 5 and 20, and the federal government's national advisory committee on immunization says better catch-up vaccination programs are needed.

"Programs to ensure that all children attending schools or day-care centres and young adults in post-secondary institutions have documentary proof of measles vaccination or immunity should be strengthened," the committee said in the statement accompanying the survey.

The committee is a federally appointed group of experts, most from outside the federal government.

Measles is perhaps the most serious of the diseases that once were common in children. It is a highly

contagious viral disease that causes fever, inflamed eyes, runny nose and a rash. Symptoms appear about 10 days after infection and one attack gives immunity for life.

About one infected child in 10 will require medical attention for complications such as middle-ear infection or pneumonia. An inflammation of the brain, called measles encephalitis, occurs in about one in every 1,000 cases, and can result in mental retardation.

Death is estimated to occur once in every 3,000 cases.

Without criticizing doctors, public health officials or provincial governments specifically, the advisory committee said there was a failure to identify and reimmunize children who had been vaccinated before their first birthday. Earlier vaccination is often ineffective.

The committee also suggested it is better for health-care professionals to err on the side of caution.

"People whose immunity status is unknown should be vaccinated," it said. "There is no known harm in vaccinating someone who happens to be immune."

/9317  
CSO: 5420/18

DOMINICAN REPUBLIC

GOVERNMENT COMBATS OUTBREAK OF SCHISTOSOMIASIS

Santo Domingo LISTIN DIARIO in Spanish 10 Jan 87 p 4

[Article by R. Rodriguez Gomez]

[Excerpts] The government sponsored an emergency meeting at the National Palace yesterday with representatives of international health organizations for the purpose of outlining the strategy to be followed regarding a nationwide outbreak of an epidemic of schistosomiasis.

To date, some 16 centers of schistosomiasis have been detected and the number of potential centers is double that, it was reported.

Cases of schistosomiasis have been found in Monte Plata, the National District, El Seibo, La Altagracia, Sanchez Ramirez and Jarabacoa.

Dr Rafael Pedro Gonzalez Pantaleon, medical adviser to the president, held a meeting in his office at the National Palace yesterday with representatives of the World Health Office, the International Development Agency and the Autonomous University of Santo Domingo (UASD).

Gonzalez Pantaleon said that until a few years ago, schistosomiasis was confined to Hato Mayor Province.

Now, he added, "we find that the disease is spreading throughout the nation and cases have been discovered in Monte Plata, the National District, El Seibo, La Altagracia, Sanchez Ramirez and Jarabacoa."

He warned that "we must be very careful with the country's irrigation policy because the disease could spread throughout the entire territory."

The official said that when the situation was detected, he summoned to the National Palace Mirtha Roses Periago, epidemiological adviser from the World Health Office, Lisa Early, from the Health Division of the International Development Agency, and Mercedes Vargas de Gomez, from the Schistosomiasis Research Institute of the Autonomous University of Santo Domingo.

Gonzalez Pantaleon said that these experts are already implementing a series of measures to control the disease, together with the Office of Secretary of Public Health and others.

11,464  
CSO: 5400/2029

GHANA

BRIEFS

ANTHRAX DEATH REPORTED--One person has died of anthrax at Kpalsogu village, near Bimilla, Mr Abu Hassan, medical assistant of the local Health Centre, said at the weekend. According to Mr Hassan, nine others who have the disease are undergoing treatment at the centre. He appealed to the regional medical unit to rush in Lysol and Antibiotics to treat the inflammations on the skin of the patients. Mr Hassan warned the people against slaughtering sick animals and avoid eating the meat of animals that die on their own.  
[Excerpt] [Accra PEOPLE'S DAILY GRAPHIC in English 24 Feb 87 p 5] /13046

CSO: 5400/129

OFFICIAL SILENCE ON ARMY AIDS CARRIER CASES SCORED

Athens POLITIKA THEMATA in Greek 20-26 Feb 87 p 15

[Text] AIDS Cases In Military Units

The text which follows was given to us by phone from a Greek province. It is worthy of special attention.

Silence is the greatest enemy...

With a sense that we are carrying out our responsibility to the public and with the expectation that there will be direct, but especially, convincing assurances from the most official state organs that the necessary and most effective measures have been taken to limit the evil, we reveal information from a most valid source, one which cannot be contradicted, that:

In two of the country's [military] units, one in the Air Force and one in the Army, during very recent medical tests for blood donations, it was found that several tens of young military men were carriers of the dreaded AIDS disease.

The source did not wish to disclose what measures had been taken either to isolate those young men or to ascertain the likely infected house [of prostitution] to block the further spread of the disease to other unsuspecting victims.

Everyone understands, however, that several tens of airmen or soldiers (some thirty cases were mentioned in the one instance), who serve at one base or unit, are most likely to have "encountered" the same disease-carrying person, and since, in the two instances, the nearest town is also a port city, one can establish the reasonable suspicion that the "little red light" visited by the young men on their outings was the place where they were infected.

The question that arises is whether the young men were adequately interrogated and if the person they encountered was located in order to assure the isolation of the guilty carrier and the removal of the abomination.

Noting simply that none of the above units is located in border regions where our armed forces are located in large numbers, for easily understandable reasons we are not designating the two locations in Greece. We will await with baited breath the reaction of the Ministry of Defense, and the Ministry for Public Order. The latter gets involved in how to handle the isolation of persons from whom the disease was contracted, be they engaged in evening pursuits or a profession during daylight hours...

GUATEMALA

HEALTH OFFICIAL REPORTS 7 AIDS RELATED DEATHS

Guatemala City PRENSA LIBRE in Spanish 19 Dec 86 p 9

[Text] Seven persons died of AIDS in Guatemala in 1986, although only one of the cases was officially identified as such by a hospital in Guatemala City, Dr Victor Manuel Espana, chief of the department of contagious diseases of the State Office of Health Services, reported.

The disease was found in persons who had arrived here specifically from the United States at various times during the year. Investigations by the authorities responsible for identifying contagious diseases have established that the disease has not been introduced into this country.

Therefore, according to Dr Espana, this matter need cause no alarm, even among homosexuals and hemophiliacs, since it has been positively established that those who died of AIDS have been returned to their homeland.

One of the seven persons stricken with the disease was admitted to a hospital in Guatemala City, but his stay was very brief as he died within two days. When the illness was diagnosed the patient was isolated, and all precautions were taken, by the admitting hospital and by the bacteriological committee of the State Office of Health Services, Dr Espana said.

He said that this case occurred some months ago. After the patient died, the section where he had been treated was placed in quarantine in order to avoid every possibility of contamination.

"I should like to emphasize that AIDS is transmitted by direct contact with an infected person and not otherwise; therefore there was never any danger that this dread disease would spread.

"For the safety and peace of mind of the other patients in the hospital, we decided to redouble the quarantine period of the section concerned, even though the patient was held there for only a few days," said Dr Espana, adding: "Therefore, everyone can rest assured that all necessary action has been taken."

12383  
CSO: 5400/2025

GUINEA

BRIEFS

MEASLES OUTBREAK--Conakry, 31 Jan (AFP)--Thirty-five persons died following an outbreak of measles in southeastern Guinea, it was learned today in Conakry from official sources. The epidemic, it was stressed, broke out in Womey in the Nzerekore Province, more than 1,000 km from the capital, in southeastern Guinea. Medical teams went to the locality but were faced with serious difficulties because of the lack of logistics and medical supplies, these sources specify. [Text] [Paris AFP in French 1541 GMT 31 Jan 87 AB]

/9716  
CSO: 5400/7

## GOVERNMENT PLANS 'HARD-HITTING' ANTI-AIDS CAMPAIGN

Hong Kong SOUTH CHINA MORNING POST in English 19 Feb 87 p 3

### [Text]

HARD-HITTING advertising slogans and graphic film footage depicting the effects of the fatal virus AIDS are being studied by the Government.

Certain parts of the package could be used in the AIDS prevention publicity campaign which is to be launched next month, it was learnt yesterday.

The advertisements eventually chosen are expected to run extensively in the print and television media and will be supported by a series of posters.

The revamped public information effort stems from remarks by a Hongkong advertising firm, Tse Needham and Standard (TNS), which lambasted the Government's poor quality AIDS advertising a fortnight ago.

The firm offered its creative talents free of charge to anyone willing to use them in Hongkong's fight against the killer disease.

It follows last week's Medical and Health Department announcement on the increase in number of AIDS victims in the territory and the subsequent call for greater awareness and education

publicity.

Information Services Assistant Director of Publicity Mr Peter Moss discussed the proposals with TNS's Mr Tse in a meeting yesterday morning.

He told the *South China Morning Post* last night: "Obviously the type of proposals we talked about were harsh and designed to shock the community."

"But some of these will need to be adapted somewhat to suit the market in Hongkong."

"What we are trying to show to the entire community is that AIDS is a sexually transmitted disease and that it is fatal."

"It is a subject of growing world concern and the promiscuous are the most at risk."

"We want to educate the public as best as possible, while we still have the time," Mr Moss said.

AIDS information avenues - where guidance could be obtained about safe sexual practices and the use of condoms - would be strengthened, but not in an explicit manner that could offend some sections of the community.

The AIDS telephone counselling network, which was being improved, would receive a portion of the advertisement time also.

Mr Moss said there were "some qualms" over the strength and intensity of the TNS proposals he had studied.

"But we need strong graphics and strong messages to promote the gravity of these dangers and risks."

"And if the advertising industry as a whole wished to have a representative on the Government's AIDS body, we would welcome such moves," he added.

The original \$80,000 budget, which was formulated last October before "we appreciated fully the urgency of the issue", may need to be supplemented, he said.

Mr Moss said the advertisement's costs could be as "low as \$200,000". The majority of this would go towards production costs. The commercials could receive free time on television.

"We have yet to decide what sections of the media should be given the most effort," he said.

/9274  
CSO: 5450/0108

INCIDENCE, EFFORTS TO CONTROL AIDS

Budapest NEPSZABADSAG in Hungarian 28 Feb 87 p 8

[Article by Istvan Rethy: "Domestic and Foreign Situation Report on AIDS"; first paragraph is NEPSZABADSAG introduction]

[Text] Barely five years ago, only a few Hungarian medical specialists were able to acquaint themselves with the properties of a mysterious virus that suddenly emerged in the United States. Soon thereafter, alarming reports arrived about the rapid spreading of the AIDS virus. It was proceeding irresistibly toward every country in the world and soon arrived in Hungary as well. By September 1985, two AIDS-infected persons were detected in our country. Our government recognized the threat early, and adopted that same year a resolution to retard the spreading of this lethal disease in Hungary. Subsequent developments, regrettably, confirmed the importance of this decision. A week ago, the Hungarian health authorities reported 102 infected persons and two cases of the disease. One of the patients died since then, and the number of infected persons has risen to 107. The patient who died had been infected with the AIDS virus in the course of a blood transfusion. Blood donors were not yet being screened at that time.

Everyone Must Be Made Aware!

Pursuant to a decree of the Ministry of Health, the foreign blood preparations in use up to then were withdrawn from circulation already in 1985, because some of the preparations were found to be infected with the AIDS virus. Since then every blood preparation, as well as all blood drawn from donors, must individually undergo mandatory testing for AIDS. Nationwide, 600,000 such tests are performed annually. In practice this has eliminated in Hungary the danger of administering AIDS-infected blood preparations or blood to a hemophiliac or a surgery patient. At the same time, the possibility of becoming infected when donating blood has also been excluded.

At the National Institute of Hematology and Blood Transfusion, in Budapest, we first sought verification of this information. Blood donors from a nearby factory happened to be waiting in the corridor. Women and men, all of them regular donors. Initially they had been worried about the possibility of becoming infected, but they were reassured when they saw the extraordinary precautions.

The blood donors first go into an examination room where a physician reviews their medical history, and checks their blood pressure, heart and lungs. If everything is in order, the donor gives blood in another room. The needle and other equipment are disposable, discarded immediately after use. Thus not a single drop of blood can be transferred from one donor to another.

"What happens if there is an AIDS-infected person among the donors?"

Chief physician Dr Kornelia Szilassy replies: "Here the virus could enter another person's organism only with the blood, through a wound or a barely visible lesion. Our workers wear surgical gloves when they have the slightest scratch on their hands. Sometimes persons belonging to groups that are most at risk to AIDS infection come as donors to our blood drives, just to find out whether they are infected. We take also this opportunity to request them not to volunteer as blood donors, but to report instead specifically for an AIDS test, at the designated locations. Namely, in the interest of utmost safety, we often have to handle separately the blood samples even when only a remote possibility of infection exists. Such suspect samples are sent directly to the AIDS laboratory."

Blood from regular donors, on the other hand, is tested in the virological laboratory for routine screening. The laboratory technicians working there, just as all the others, have been trained by Holland's Organontechnika firm to do the AIDS test. Here everyone is working in surgical gloves and puts in much overtime, because all the blood drawn must be screened the same day. Using the Dutch test, the laboratory detects the presence of the antibodies formed in the blood of a person infected with the AIDS virus.

The plastic slides of HTLV-III [human T cell leukemia virus type III] antigen are taken from the refrigerator in their original plastic bags. The small compartments of the slides contain killed AIDS viruses cultured in lymphocytes, onto which drops of the highly diluted blood are dripped from a pipette. The specimens obtained in this manner are incubated at 37°C. Then, after thorough rinsings, more antibody is deposited repeatedly on the specimens. Following this 2.5-hour chemical process, the specimens are examined in a spectrophotometer. The positive specimens are dark yellow. The negative ones are almost clear.

"Each AIDS test costs us about two dollars at present," explains our guide, Dr Eszter Ujhelyi, a research biologist. "Just yesterday, the Isotope Institute of the Hungarian Academy of Sciences and Holland's Organontechnika have concluded an agreement under which we will be producing domestically certain components of the diagnostic tests. Thus the cost per test can be expected to drop."

On the table there is now only one plastic bag labeled "Infected. Not for Transfusion!"

Dr Maris Hejjas, chief of the routine laboratory, explains: "This bag of blood will be sent to the AIDS laboratory on the fifth floor, where additional tests will be performed to double-check for possible error in the spectrophotometer's reading."

"There are only numbers on the drawn blood."

Dr Eszter Ujhelyi replies: "Blood drawing is strictly confidential. Instead of names, only the blood's seven-digit code number and the donor's personal identification number appear on the bags and test tubes. The numbers and the donor's name can be matched in the computer. But the donor's name may be retrieved from the computer only if the test result is positive and the donor has to be notified."

The AIDS laboratory, the doctor's realm, is formidable to the outsider. Test tubes filled with blood are lined up in racks. All the blood samples, from Laszlo Hospital, are infected with the AIDS virus. The sun shines into the small room through a wide window that offers an unobstructed view of Mount Gellert.

"Today the person who becomes infected with the virus and gets the disease is still almost doomed," continues Dr Eszter Ujhelyi. "No matter how painful, this has to be said so that we may save at least the lives of those whom this insidious disease is still just threatening."

Gyorgy Fust, a doctor of medical sciences and chief of the Immunopathology Department at the institute, continues: "This is the key problem with AIDS. We have already stopped its spreading through transfusions and blood preparations. But those who are engaging in sex recklessly remain at risk. We can save them, and their unsuspecting partners, only through education.

"Everyone must be made aware that a casual affair immediately exposes one to the danger of infection. Those who have been promiscuous up to now must limit the number of their partners; and they must be told, without any prudishness, to use condoms."

"Can this virus be transmitted only through sexual intercourse?"

"It has been clearly established that the virus cannot be transmitted as droplet infection, in public baths or toilets, with food, by shaking hands, at the hairdresser's or through mosquito bites. It is transmitted exclusively through sexual intercourse or by sharing a needle to inject dope. But through these modes of transmission the virus claims its victims with exceptional speed."

"Many people who presumably are carriers and could infect others shun screening for AIDS because they fear the humiliation and publicity. What can you say to encourage members of the at-risk groups to volunteer for screening?"

"The AIDS tests are being handled with the strictest confidentiality. Only the health-care workers directly involved know the identity even of AIDS patients. In the interest of facilitating the screening program and preventing further infections, the occasionally still existing prejudices must be set aside. Our sole task at present is to retard and prevent the spreading of a virus that claims its victims with unprecedented virulence and speed. The persons who submit voluntarily to screening will perhaps be reassured by the fact that they can now be screened also at the OKI [National Institute of Public Health] and the Kojal's [public health and epidemiology stations] in

Budapest and in Hajdu, Baranya, and Csongrad Megyes. But there is no reason to fear the dermatology and venereal disease clinics, either. In the corridor, no one can tell whether the arriving patient has a skin irritation or AIDS. In the examination room, on the other hand, professional secrecy is complete. Today already the interests of entire society demand this," said Dr Fust.

Due to the widespread licentious attitude to sex in our time, the virus has spread even to heterosexual relations. This makes the virus more formidable because not even the average population is safe from it. For the time being, only restricting sexual relations to one partner and the other mentioned methods can provide protection. The eventual solution may be immunization. According to Dr Gyorgy Fust, the world's scientific community is working at a fast pace on amply-funded experiments to develop a vaccine. Thus there is hope that a vaccine will be available within a few years.

As we leave the AIDS laboratory, Dr Eszter Ujhelyi notes that, practically every week, there are new advances in equipment to facilitate and perfect the tests. The expensive blood-testing system already at the institute will soon speed up the work. Recently the institute obtained West German vacuum needles that make blood drawing extremely safe.

Counselor Dr Adam Vass, chief of the Epidemiology Department within the Ministry of Health, concurs that education is the most important task at present. In his opinion, what we must now achieve is that nobody be exposed to lethal danger through ignorance. Today only a sensible life-style offers real protection against AIDS.

1014  
CSO: 5400/3012

## TROUBLE WITH FOREIGN STUDENTS OVER AIDS TESTS

## Protest in Delhi

New Delhi PATRIOT in English 28 Feb 87 p 3

## [Text]

Over fifty African students of Delhi University were detained and 200 others lathi-charged in the Capital on Friday, when police scotched an intended demonstration against the recent Government directive to making an AIDS test compulsory for them. The students, who had gathered outside the main gates of Ambedkar Stadium were stopped before they could move in a procession to the headquarters of Indian Council for Cultural Relations, Azad Bhavan.

Amidst placards of "India practices AIDS apartheid" and shouts of "African Jiju Zaidi" (Africa higher and higher) over 250 African students registered their anguish of being singled out in the university for a must AIDS test before the ensuing annual examinations.

Nearly 1,000 students in Delhi University had received college orders on Wednesday to produce what has been officially termed as "a fitness medical certificate" from the National Institute of Communicable Diseases, Shyamnath Marg, before 16 March next month non-compliance will result in rustication from the university and subsequently deportation from India.

In Jawaharlal Nehru University, 10 students have already un-

dergone AIDS detection test in AIIMS early this month.

**Police cordons broken:** On Friday, the students, under the banner of the African Students Association (India), Delhi, had resolved to register their protest in a peaceful rally and highlight their case. To this the local police objected saying that 'no foreigners are allowed to demonstrate on the streets of the Capital'.

The students persisted in going ahead with their "peace plan". Over 150 students broke up the police cordon and ran towards Azad Bhavan. The rest who were left at Ambedkar Stadium were lathi-charged. The police also tore off all the banners which students had brought with them. A Somalian and Sudanese lost their shirts at the hands of the police. Scores of girls were among the students taken away in police pick-up vans.

African Students Association president Ndirangu Maina, from Kenya, addressing newsmen later said, "what has enraged us is the explicit apartheid way. This AIDS test has been enforced upon us. Only upon us".

**Discrimination:** The students alleged that students from countries like Bhutan, Nepal, United States and Bangladesh had not been told to undergo the AIDS detection test.

"My roommate is from United States and authorities have not told him to produce an AIDS negative certificate", said Yaseer Ahmed, a Sudanese studying in Hindu College. He added, "when I refused to sign the papers to undergo the test, the college authorities passed the directive to my country's embassy. Only yesterday I had received it from my ambassador saying that they were helpless and I must go according to college authorities".

Later in the evening one of the High Commissioners from the African continent, who requested anonymity, said it was unfortunate (the directive) for the African student community, who had been made the target of insinuation regarding the AIDS test.

Meanwhile, the students who squatter on the lawns of Azad Bhavan till late evening demanded that the elusive Director of the ICCR should give them audience and promise them to take their case to the authorities.

## Bombay International House

Bombay THE TIMES OF INDIA in English 23 Feb 87 p 1

[Text]

BOMBAY, February 22:

MOST foreign students at the International Student House (ISH) here today refused to give blood samples for the Acquired Immune Deficiency Syndrome (AIDS) test, as desired by Bombay University.

The university, through a circular issued on Friday last, had made it mandatory for foreign students to undergo the test, with a threat of not allowing them to sit for their examinations if they refused.

A team of doctors and university officials, who arrived at the ISH at noon today, returned after a few hours with barely half a dozen blood samples.

While a few students, including two women, voluntarily agreed to undergo the blood test, a majority of the hostel's residents refused on the ground that they were being discriminated against, and that the university had acted arbitrarily in issuing the threat of debarring them from examinations.

University officials themselves expressed helplessness and said they were only extending an order of the Centre to the effect that all foreign students be certified as not having contracted the dreaded disease.

A student from the hostel also said one of the doctors who had come there

had behaved rudely on seeing students hesitating to come forward for the test.

The doctor reportedly shouted at a group of African students saying it was from their homeland that the AIDS disease had originated, and that it was stupid of them not to agree to a blood test.

A large section of students have expressed resentment at the way the university had passed the order, and said it would have been much better had the students been asked to produce a certificate from the AIDS clinic in the city, without having to make a show of collecting blood samples in public.

It was also pointed out that several students from abroad were now in the country for over four years, and even the latest batch would have spent almost a year in the university.

It was therefore, unlikely that the government could positively detect all AIDS cases with 100 per cent accuracy.

Students suggested that it would be less embarrassing if the AIDS clearance test was conducted prior to their entering the country, and not after they had spent a few years in Indian universities.

Representatives of foreign students, and the post-graduate students' union have planned to submit a memorandum to the vice-chancellor, Dr. M. D. Rangwala, protesting against the method adopted for conducting the blood test.

## Aligarh Vice Chancellor

Bombay THE TIMES OF INDIA in English 24 Feb 87 p 6

[Text]

ALIGARH, February 23 (UNI): The vice-chancellor of Aligarh Muslim University Mr. Syed Hashimullah, was subjected to an AIDS test here this morning after some foreign students protested for being singled out for the tests.

A recent University notification ordered that all those who had just returned from a foreign country must undergo the test for presence of the AIDS virus as a precaution against a possible outbreak of the dreaded disease.

The foreign students on the campus protested that Mr. Hashimullah, who had been to Houston, USA, for an open heart surgery, must also undergo the AIDS test.

Some Cases Found

Calcutta THE TELEGRAPH in English 26 Feb 87 p 5

[Text]

New Delhi, Feb. 25 (UNI, PTI):  
Ten of the 1127 foreign students  
screened so far have been found  
to have AIDS infection.

Stating this in a written  
answer in the Rajya Sabha to-  
day, the minister of state for  
health, Mr Saroj Khaparde, said  
instructions have been issued to  
state governments, Union terri-  
tory administrations and all uni-  
versities for health screening of  
all foreign students, including  
screening for AIDS.

The human resources minis-  
ter, Mr P.V. Narasimha Rao told  
Mr V. Gopalaswamy during  
question hour that there was "no  
discrimination" in conducting  
these tests. Potential carriers  
were being sent back as a pre-  
cautionary measure, he said.

Mr Rao said surveillance cen-  
tres in different parts of the  
country had detected 86 cases of  
AIDS infection and five full-  
blown cases of AIDS had died.

/9274  
CSO: 5450/0105

## AIDS ANTIBODY IN 18-MONTH-OLD CALCUTTA BOY

Calcutta THE TELEGRAPH in English 13 Feb 87 p 5

(Article by Soutik Biswas)

[Text]

Calcutta, Feb. 12 : The Bhoruka blood bank, a premier private blood bank and research laboratory in the city, has recently detected the presence of AIDS antibody in an 18-month-old boy.

The child is suffering from thalassemia, a genetic blood disorder which leads to anaemia and requires multiple blood transfusions. A senior doctor of Bhoruka said that the presence of AIDS antibody in the boy's blood "did not necessarily mean that he carried the virus also but the possibility cannot be ruled out." A report on the case has been sent by the bank to the Medical Council of India.

Dr Dilip Bhattacharya, renowned haematologist and director of the bank, told The Telegraph that the case was detected while Bhoruka was con-

ducting a survey on a segment of the high-risk population, namely, patients with various blood disorders who had to undergo regular multiple transfusions from several sources. More than 100 samples from handpicked patients representing this high-risk population had already been tested.

Meanwhile, the National Institute of Cholera and Enteric Diseases recently tested blood samples of 40 foreign students of IIT, Kharagpur for AIDS virus with negative results.

Institute sources said that the samples had been sent to them by the IIT authorities following a circular from the Union ministry of human resources directing that all foreign students studying in different universities in the country would have to

undergo the AIDS test.

It was also learnt that the institute's offer to test blood samples of city residents for AIDS free of cost had elicited a very poor response. Only seven persons had come to the institute and agreed to the tests which all proved to be negative. Among them were a "bright student from the Calcutta University and a few businessmen" who admitted frequenting brothels, the sources added.

The institute has been regularly testing samples from blood donors to the Assembly of God Church Hospital and the Eastern Command Army Hospital, sources said.

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CSO: 5450/0103

## BRIEFS

AHMEDABAD JAUNDICE DEATHS--Gandhinagar, 10 Feb (PTI)--As many as 74 cases of jaundice out of the 1,240 reported in Ahmedabad city between July and December last year, were fatal, Health Minister Vallabhbhai Patel, informed the State Assembly yesterday. Polluted drinking water was the cause of spread of the disease, Mr Patel said in a written reply to Mr Lalit Patel (Cong). In another written reply, to Mr Shantilal Patel (Janata), he said as many as 260 persons out of 4787 died of jaundice during the same period in other parts of the State. However, the Government was taking all precautions to check the disease, he said. [Text] [New Delhi PATRIOT in English 11 Feb 87 p 5] /9274

VACCINATION AGAINST LEPROSY--Pune, 6 Feb (PTI)--Nearly one lakh people--related to leprosy patients--from Solapur, Latur and Osmanabad districts--would be covered under the anti-leprosy vaccine project during the next five years as a preventive measure since they were exposed to high risk of contracting the disease, according to Dr Madhav Deo, scientist from the Cancer Research Institute in Bombay. Speaking at a function here yesterday to observe the leprosy eradication week, Dr Deo said the Indian Cancer Research Centre (ICRC) vaccine developed indigenously in 1979 was tried on about 500 patients and 95 percent of those who lacked immunity developed the ability to mount an immune response against leprosy germs. He said the project, formally inaugurated on Tuesday at Akkalkot in Solapur district, was sponsored by the Indian Council of Medical Research (ICMR), New Delhi and would be jointly carried out by the State Government and the Cancer Research Institute, Tata Memorial Centre (Bombay). There are about 3.57 lakh leprosy patients in the State, of which 99 percent were undergoing medical treatment, Dr M. V. Yellapurkar, joint director, Health Services, said. [Text] [New Delhi PATRIOT in English 7 Feb 87 p 5] /9274

CSO: 5450/0107

GOVERNMENT OUTLINES CAMPAIGN TO BATTLE AIDS

Dublin IRISH INDEPENDENT in English 20 Jan 87 p 10

[Article by Ann O'Loughlin]

[Text]

HEALTH Minister Barry Desmond has pledged that a countrywide AIDS campaign — which will be "quite explicit" — will be implemented no matter what the opposition.

Along the lines of the British programme, it would include a free phone service run by the four health boards and begin by the end of the month if approved by the Cabinet today.

The Government has been circulated with the package of proposals prepared by the Health Education Bureau (HEB). If given the go-ahead, the campaign of educating, training and counselling will be in full swing by February.

Mr. Desmond, who was presented yesterday with a health promotion report by the HEB in Dublin, said the budget for the campaign advertising in the media alone was half a million pounds. The programme proposed was "multi-faceted" and included both long-term and short-term measures.

He stressed: "The campaign will go ahead — a change of government won't get rid of AIDS. Already medical staff and GPs are being trained to deal with the disease."

The campaign's key aim is to educate people on how the killer disease is transmitted and dispel fears that ordinary day-to-day contact with an AIDS virus carrier could be hazardous.

"Staff will have to be trained in dealing with AIDS victims and others will have to be trained in how to convey information," Mr. Desmond said.

The programme would provide a counselling service for AIDS victims and their families. The free phone system will be operated within each health board area and staff will be trained to deal with AIDS queries.

Meanwhile, the HEB report "Promoting Health Through Public Policy" recommends the introduction of statutory provisions expanding the role of the Minister for Health

/9317  
CSO: 5440/071

## IVORY COAST

### EFFORTS TO CONTROL LEPROSY

#### Strategy Against Leprosy

Abidjan FRATERNITE MATIN in French 27 Jan 87 p 4

[Article by H.D.Y.: "Polychemotherapy and the Haunting Memory of Failure"]

[Text] The 34th World Leper Day, celebrated here and elsewhere, continued to sensitize public opinion regarding the phenomenon of leprosy...And D'Pie Masumbuko, representative of WHO in the Ivory Coast, expressed the hopes that are placed in polychemotherapy, the new antileprosy treatment.

"We have no right to fail..." This is what D'Pie Masumbuko, representative of WHO in our country, said. "The use of polychemotherapy must be implemented progressively. We must resist opposition. Otherwise, we run the risk of calamity. We must make use of every technical and operational possible treatment...But, as I speak, hope is now possible; because we have a good possibility."

The role of WHO in fighting leprosy is of prime importance. In a general way, this organization that intervenes in the threefold international, regional, and national project is charged with evaluating the situation regarding leprosy (statistical facts...) It is also charged with providing guidance and technical cooperation, as well as all policies regarding activities in this domain...Its province thus extends to the determination of strategy and to the implementation of the means to be used in the fight...The Abidjan meeting that it has just organized falls within this context. "We have felt the need of stating the true position concerning antileprosy in the sub-region. It left something to be desired..." said D'Pie Masumbuko who, from the opening of this meeting, has made integration of the antileprosy fight with the national systems of health its priority topic.

In the opinion of the latter, this is the only way of fighting leprosy to obtain the greatest chance of success. "We must include leprosy in an overall fight...at the level of research, supervision, and the checking of primary health centers. The strategy of the SSPs is formulated in the outskirts on the basis of priorities experienced by the populations, with the participation of the communities. Health education, basic information, must be realized at this level. And the communities, themselves, are the ones that must take this responsibility.

In the case of leprosy, responsibility for a sick person must be taken by the health committee of the village. It is the well-informed and well-educated community health officer who will be able to assume responsibility for all the tasks connected with education and the distribution of medicines. This is the strategy that the Ivory Coast decided to carry out during the meeting of the district medical chiefs.

Advances in chemotherapy for leprosy require that there be guidance in the distribution of medicines. There must be more supervision, good coverage..."

When would it be possible to provide generalized polychemotherapy? In the opinion of the representative of WHO in the Ivory Coast, it depends on the countries, the localization of their health training centers, the degree of prevalence of the disease.

"We have medicines—qualified personnel, a strategy. If the recommendations of WHO are followed, this terrible endemic disease can be wiped out more easily..." he concluded.

#### Statistics On Lepers

Abidjan FRERNITE MATIN in French 28 Jan 87 p 5

[Excerpts] An infectious and chronic disease, the pathogenic agent of which was discovered in 1873 by Amaver Hansen, a Norwegian, leprosy primarily affects the peripheral nervous system (nerves) and secondarily invades the skin. Leprosy is a very disabling, deforming, and handicapping disease. Its socio-economic aftereffects can be dramatic.

During a lecture in February 1985 D'Konan Kanga, district chief of rural health in Treichville, said that 30 to 35 percent of lepers are not able to provide for their own needs, nor for those of their families. Thus they are a heavy burden for society. The number of lepers throughout the world today is estimated at 10 to 12 million.

A search of the district rural health files revealed that there were approximately 45,579 sick persons in the Ivory Coast in 1985, of which 2,225 were tracked down.

The most afflicted districts are: Korhogo, 4,356; Bouake, 4,300; Boundiali, 3,524; Abidjan, 2,743; Bouafle, 2,668, Yamoussoukro, 2,642, Dimbokro, 2,437; Dabakala, 2,376; Daloa, 2,145; Danane, 2,132...

The rural health districts are in the forefront of the fight against leprosy in the Ivory Coast.

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CSO: 5400/103

MINISTRY REPORTS ON INCIDENCE OF AIDS; DEATHS AT EIGHT

Kingston THE DAILY GLEANER in English 7 Feb 87 p 2

[Text]

SINCE last year there have been a total of 16 persons with clinical manifestation of the dreaded disease, Acquired Immune Deficiency Syndrome (AIDS) in Jamaica, eight of them have died.

The major high risk group in the cases have been homosexuals, who are mainly congregated in the Corporate area, farm workers and seamen. Four of the cases have been farm workers who have worked in one locality in the United States, Belle Glade, Florida which is known to have a high prevalence of AIDS and where more than 70% of the female prostitutes have bloods positive to AIDS testing.

The Ministry of Health said that it has prepared a more comprehensive programme of national health education but the programme has not yet been fully implemented.

According to a release from the Ministry of Health there have been twelve full blown cases of the disease, two cases of AIDS-related complex and two cases of patients with generalised lymph gland enlargement, making it a total of 16 patients with clinical manifestations of AIDS that have occurred in Jamaica.

Of these 16 cases, 13 contracted the disease abroad. One of the remaining three, the common-law wife of a farm worker with positive blood contracted the disease and has died. The other two have lymph gland enlargement with positive blood and had contact with infected visitors from overseas.

It has been nearly one year since the Ministry of Health released the

information that there were four confirmed cases of AIDS, three of whom had died. Since then, there have been an additional eight cases of full-blown AIDS, making a total of 12, eight of whom have died.

According to the Ministry the commonest symptoms seen in the Jamaican cases have been: a loss of weight, cough, fever, diarrhoea and soreness of the mouth and medical practitioners are advised to have a high index of clinical suspicion regarding this condition and to notify the Epidemiologist in the Ministry of Health of any such cases.

There are still no well authenticated cases of AIDS being transmitted to health workers nursing AIDS patients in institutions. Training programmes for health workers working with AIDS patients have been carried out by the Ministry of Health on a limited scale.

The Blood Donor screening programme has been carried out by the Ministry of Health and last year 4,000 farm workers were screened and 17 positive reactors found. Positive reaction to the test does not necessarily mean the subject is carrying AIDS virus or suffering from the disease because false positives occur. Further, more specific testing have to be done abroad before this diagnosis can be made with certainty.

Promiscuity with many sexual partners of whatever sex have also been a major factor in the development of AIDS in the cases and the use of condoms could be an important measure in the prevention of the spread of this dreaded disease.

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CSO: 5440/074

PROFESSOR REPORTS NO AIDS CASES IN COUNTRY

Amman JORDAN TIMES in English 7 Mar 87 p 3

[Text]

AMMAN (J.T.) — Jordan is free of Acquired Immune Deficiency Syndrome (AIDS) and it is expected that this disease will not pose a problem in the Kingdom in the near future, according to research conducted by Ala'uddin Touqan from the University of Jordan.

In a working paper presented to the 5th Jordanian medical conference, Dr. Touqan said that tests have shown that the AIDS virus is not endemic in Jordan, although there is a possibility of individual AIDS cases appearing in the future.

Dr. Touqan based his study on the similar modes of transfer of the AIDS virus and the virus causing hepatitis. Therefore, he said, if the AIDS virus exists in Jordan, then it is probably that it exists among people suffering from hepatitis. He based his study on a sample including 246 hepatitis patients and 147 people in contact with them. The sample also included three other categories; 552 healthy adults, 70 prim-

ary health workers and 109 patients from the University of Jordan Hospital. The tests showed that the AIDS virus is not endemic in the country, he said.

However, Dr. Touqan stressed the importance of objective and continuous awareness of AIDS through the various mass media. Dr. Touqan also outlined the important role health institutions can play in providing the blood bank with local blood and he stressed the importance of screening imported blood.

Dr. Touqan said that he deemed there was no need for examining blood donated locally because this process is very expensive and because there is no AIDS problem in Jordan. However, he said screening is necessary in cases of people who might have contracted the AIDS virus abroad, people who have been given blood during a stay abroad, those who have had abnormal sex relations or who were drug addicts.

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CSO: 5400/4517

## INCREASE IN BREAST-FEEDING REDUCES INCIDENCE OF DIARRHEA

Amman THE JERUSALEM STAR in English 5 Mar 87 p 21

[Article by Joyce Niles]

[Text]

NINTY-THREE per cent of Jordanian mothers now breastfeed their babies, according to a study conducted by Dr Sami Khouri, head of the University of Jordan's Community Medicine Department.

Investigations revealed that although increasing numbers of Jordanian women are now in the workforce, this has not prevented them from protecting their babies' health with breast milk, either wholly or in combination with milk formulas.

Dr Khouri typified the incidence of diarrhoea as, "In Jordan it is not as bad as it used to be and not as bad as in other places where it is out of control. In any country it is a problem some of the time." He said that with the spread of health centres and of doctors in remote regions, further training of nurses and midwives and an ever enlarging outreach programme that sends health visitors to newly delivered mothers, antenatal and postnatal educational sessions and practice for mothers in giving oral rehydration solutions (ORS) to ill children have all contributed to reduce incidences of diarrhoea, the number one killer of children under five.

Prior to World War II all Jordanian women breastfed their children, but in the mid-1940's practices gradually changed to include bottlefeeding as women got more education and more of them joined the labour forces. Bottlefeeding was a passing fad that reached its peak in the 1970's. After that the

most highly educated women, under the influence of teachings from doctors and nurses, went back to breastfeeding from the first day.

Along with this, they dropped the dubious tradition of not allowing the baby to feed from his mother during the first 48 to 72 hours after birth and substituting sugared herbal teas for the very valuable colostrum. The colostrum deprivation was actually harmful to babies, said Dr Khouri.

Currently, even with increasing numbers of Jordanian women in the workforce, they are overwhelmingly relying on breastfeeding to give their infants a good, healthy start in life. Working mothers with babies either take part-time jobs or take a 40-day postpartum leave then use a breast and bottle combination when returning to work, a method that reduces the incidence of diarrhoeal episodes in their babies.

Average length of breastfeeding was six to eight months with a frequency distribution showing the highest number of mothers in the one to three months range and peaks at multiples of six months periods (0, 12, 18 and 24 months). Dr Khouri said this reflects the cultural and religious influences of the Holy Qur'an that recommends two years of breastfeeding for babies.

There still remains the danger of relying entirely on bottlefeeding.

"We noticed that the increased use of bottlefeeding increased also the incidence of diarrhoea because you must follow a very strict regimen in handling the bottles; sterilisation of the equipment, the formula, water, etc. If you don't do that the effect of bottlefeeding is usually very harmful to the baby," Dr Khouri elaborated. "With the education of the mothers they know how to manage the bottle, so with mixed feedings they can avoid diarrhoeas and other gastrointestinal diseases."

"Diarrhoea is still the first cause of mortality and morbidity in children under five," Dr Khouri continued, in addition to encouraging Jordanian mothers to breastfeed babies as a way of giving them a healthy start in life, the ministry of health and medical personnel are

waging a very intense campaign in health centres throughout the country to teach proper preparation of bottle feeds, and how to treat diarrhoeas with ORS.

"Mothers are given the ORS packets, taught how to use them and after two or three days they come back and their children are cured," he said. "Parents are responding to these teachings because they care very much for their children. Clinic physicians give good advice, are sympathetic and answer questions. Knowledge spreads through women."

Dr Khouri said that time taken by medical personnel to properly educate just one woman on these matters had a much greater impact because she would return to her relatives, friends and community to disseminate what she had learned.

/9317

CSO: 5400/4514

## AIDS SEMINAR TO BE HELD

Kuwait ARAB TIMES in English 4 Mar 87 p 3

[Text]

OFFICIALS of the GCC health ministries will hold a seminar next Saturday to discuss ways to combat Acquired Immune Deficiency Syndrome (AIDS).

Rapporteur to the national committee for combating AIDS, Dr Rashid Al Owayesh, told Kuna yesterday that the two-day seminar aimed at unifying the strategies of the Gulf Cooperation Council states in identifying AIDS cases and carriers and preventing the spread of the disease among the GCC states.

He said that the seminar was part of the cooperation strategy among the GCC states to combat AIDS and to discuss preventive measures in each state.

### Spotted

On the spread of the AIDS in Kuwait, he said that the ministry has recently diagnosed a non-Kuwaiti AIDS carrier and the necessary measures had been taken adding that this was the fifth case in the country. The other four carriers were deported.

He pointed out that the Health Ministry has taken the

necessary precautions to prevent the spread of the disease.

Al Owayesh warned against the further spread of the disease and called on citizens and residents to cooperate with the Health Ministry and abide by health instructions.

### Supports

Al Owayesh said that the ministry was following the development of the disease and supports all efforts to combat it, adding that the ministry hosted an international conference on AIDS in the Mediterranean basin and was now preparing for this seminar next Saturday.

On the preventive measures taken by the Kuwaiti authorities, he said that the ministry has examined groups arriving from areas infected by the disease, noting that the ministry also took measures to ensure the safety of blood used in blood transfusions.

He said the World Health Organization (WHO) has singled out Kuwait as a specialized center to help the Mediterranean region spot patients who show AIDS symptoms.

/9317  
CSO: 5400/4515

MOZAMBIQUE

MORE THAN 10,000 PEOPLE VACCINATED IN MANDLAKAZE

Maputo NOTICIAS in Portuguese 20 Jan 87 p 3

[Text] More than 10,000 people were reached by the expanded vaccination program in Mandlakaze during 1986, as the district health director of that part of the province of Gaza informed NOTICIAS.

The preventive medicine agency, responsible for the program, was able to achieve success through a fleet of three vehicles that allowed for almost complete coverage of the district.

In the curative medicine sector last year, there was evidence of improvement in the delivery of vaccines, and also of a heightened awareness shown by the people in the communal towns where the curative medicine agency was operating, as shown by the people's generous and voluntary contribution of food and money for the subsistence of agency personnel.

The district director, during our interview, expressed apprehension regarding the outbreak of malaria in 1986, exacerbated by the disease's tremendous resistance and the high costs of medication for its control. In 1986, 2,724 cases of malaria were treated, or an average of more than 200 cases per month.

The director said that an electric generator is in the process of installation at the rural hospital of Mandlakaze, and that the installation should be completed soon.

Also, at that hospital, the GEOMOC company began drilling for water last November, and hospital management is trying to secure a mechanized pump for use at the well.

Due to a lack of construction materials it was not possible to complete the reconstruction of the health station at Macuacua that was destroyed by enemy action in 1982.

The district health director praised the role played by the Swiss Religious Congregation in taking on the difficult responsibilities of the health center at Manusse, and especially its effort in dealing with the water shortage by making a mechanical pump available to the center.

12857/9190  
CSO: 5400/94

VACCINATION PROGRAM SUCCESSFUL

Maputo NOTICIAS in Portuguese 29 Jan 87 p 3

[Text] The program of vaccination against several illnesses had quite positive results last year in Inhambane. Those results were made public during the coordination council meeting held at the beginning of this month in that city.

Last year more than 10,000 people were vaccinated in Inhambane, a significantly greater number than in the previous year.

During the same period, an increasingly greater number of women availed themselves of pre-natal clinic visits as a result of a door-to-door campaign carried out by paramedical personnel from the Inhambane provincial hospital.

The coordinating council of the health authority in that city also cited the fact that during the past year more than 2,000 schoolchildren of the city were vaccinated.

Other vaccination campaigns were carried out in the Inhambane suburbs of Salela, Nhampossa, Conguiana, Mocucune, and Ilha de Inhambane.

In addition, the results achieved in controlling such epidemic diseases as tuberculosis and leprosy during 1986 were considered satisfactory.

A total of 159 cases of tuberculosis and 22 of leprosy were also treated. This result was achieved through the coordinated action of the various health functions of the city, several party organizations, and community groups, all of whom contributed to creating a greater utilization of hospital services by the populace.

Nevertheless, the Health Coordinating Council of Inhambane pointed out the necessity for the establishment of centers for the control and treatment of epidemic diseases. The centers would be created in those sections located far from existing health stations.

It was also recommended that the construction of these centers should involve the local population using local resources.

The construction of latrines in outlying suburbs was another positive result achieved during the past year.

Data furnished at the meeting indicate that 2,153 latrines were built and 633 sanitary landfills completed last year. These projects received wide support from the local population in each place.

12857/9190  
CSO: 5400/94

AIDS SCREENING CENTERS TO BE ESTABLISHED

Lagos DAILY TIMES in English 19 Feb 87 pp 1, 13

[Text]

**T**WO Acquired Immune Deficiency Syndrome (AIDS) disease diagnostic centres are to be established in the country.

The chairman of the National Expert advisory Committee on AIDS (NEACA), Professor Ehim Esien, told journalists in Lagos yesterday that, in addition to the two "confirmatory test" centres, additional laboratories where HIV virus would be screened locally, would be built.

Prof. Esien, who was presenting the second communiqué of the group, also disclosed that a nationwide campaign aimed at educating Nigerians on all aspects of the disease would soon be launched by the Federal Government.

He said although the committee found no evidence of AIDS attack among 400 blood samples randomly tested in the country, there was need to make the issue part and parcel of the nation's health programme.

The first stage of the programme, he said, was to educate all Nigerians on AIDS.

The committee would soon embark on the sampling of another 48,000

people's blood in a search for any strains of HIV

"Results of tests on different groups of Nigerians, including those that constitute high-risk groups, continued to give negative results," he said.

Prof Esien, who was presenting the second report of his group, however, advised Nigerians, especially those who frequently travel to Europe, America, East and Central Africa, to avoid casual and allied relationships.

Prostitutes, particularly in urban centres and border areas, he warned should protect themselves at all times by insisting on the use of condoms.

He said the anti-AIDS campaign being envisaged would contain a public enlightenment programme by information, medical and para-medical personnel.

Prof Esien commended the Nigerian Press for its " lively" interest over the AIDS question but condemned the Western Press suggestion that the HIV virus originated from Central Africa because, according to him, the assertion is not consistent with available scientific data.

/13046

CSO: 5400/128

## CEREBROSPINAL MENINGITIS OUTBREAKS REPORTED

### Deaths Reported in Benue State

Kaduna NEW NIGERIAN in English 5 Feb 87 p 16

[Article by Daniel Tifato]

[Text]

TWO more persons have died from Cerebro-Spinal-Meningitis (CSM) in Benue State.

The Permanent Secretary, Ministry of Health, Mr. J.B. Orokpo said six persons in the Katsina-Ala Local Government area of the state were reported to have been attacked by the disease and two of those people that died were victims of the disease.

Mr. Orokpo said the outbreak of the disease was being controlled to ensure that more deaths did not occur.

He disclosed that two medical teams have been despatched to the local government to assist in immunisation exercise, adding that already more than 60,000 doses of vaccine have been used up there.

The permanent secretary said although the disease was reported in only Katsina-Ala Local Government area, the in-

munisation was being extended to other parts of the state.

Also, he confirmed that the epidemic in the state had been reported to the Federal Ministry of Health where assistance in the form of vaccines was being expected.

Mr. Orokpo attributed the presence of the disease to poor ventilation and bad environmental sanitation, adding that a public enlightenment campaign was being mounted to educate the people of the need to have healthy surroundings.

When the New Nigerian visited Adi village about three kilometres from Katsina-Ala, it was disclosed that about 10 people have died there within the past two weeks.

However, health officials at Katsina-Ala explained that the deaths have not been confirmed as resulting from the attack of Cerebro-Spinal-Meningitis.

### Cases, Deaths Reported in Plateau State

Kaduna NEW NIGERIAN in English 14 Feb 87 p 9

[Text]

FOUR persons have died in an outbreak of Cerebro-Spinal-Meningitis (CSM) in Shendam Local Government area of Plateau State.

Reports reaching the New Nigerian from the area said five people were on admission

while two have been treated and discharged for the disease.

Health officials in the local government area said mass education was now going on to enlighten the public on the symptoms of the disease and its prevention.

The official said necessary attention was being received from the state ministry of health in the treatment of affected persons.

Meanwhile mass immunisation of people in areas prone to attack of the disease in the state is now going on.

Cases on      Decline in Kano

Kano THE TRIUMPH in English 18 Feb 87 pp 1, 2

[Article by Garba Shehu]

[Text]

FEWER cases of the killer disease, Cerebro-Spinal Meningitis, CSM, were recorded last week at Kano's only Infectious Diseases Hospital than had obtained in the previous week.

The disease which is one of the hazards of poorly ventilated houses is more commonly recorded during hot season. Last year, 10,277 CSM cases were recorded in the state out of which 664 died.

The State Committee for Mass Mobilisation of the community against CSM and other epidemics which made this information available said the disease which is not in epidemic

proportions yet, claimed four lives in the second week of February, down from five in the previous week.

As at the close of work yesterday, only 33 CSM cases were in the hospital as opposed to 57 recorded on the same day the previous week.

Measles, another disease rearing its head this season shows a higher admission rate — an average of 18 per day — but with a lesser death rate than the CSM. Three deaths were recorded out of the 131 measles patients admitted last week.

/13046  
CSO: 5300/130

MALNUTRITION RELATED DISEASE BECOMING COMMON OCCURRENCE

Lagos DAILY TIMES in English 19 Feb 87 p 13

[Text]

**MALNUTRITION** in Nigeria has now assumed a new dimension, the president of the Paediatric Association of Nigeria, Dr. J. B. Familiu said in Lagos yesterday.

Dr. Familiu said "concern oris", a malnutrition-related disease hitherto unknown in the country before is now a common feature in the paediatric wards of many of the teaching and specialist hospitals in the country.

He regretted that last year, 90 per cent of the hospitals recorded an increase in the number of children admitted with "frank" nutritional problems.

Dr. Familiu, said that the diminishing resources in these hospitals would make it much harder for these unfortunate children to have adequate reconstructive surgery on their battered faces.

Other problems affecting the young ones according to the association

president are growing problems of child abandonment, child labour, child and teenage abuse.

He expressed concern that the harsh economic situation and lack of adequate parental care are forcing many teenage girls to become victims of sex abuse by adults.

The problem in hospital, he added, is that hospitalized children are required to pay for their hospital meals despite the fact that malnutrition is the major disease in a high proportion of these children.

He said that investments in the health and education of our children should be a top priority of the government. Government he said should intervene to arrest the increasing incidence of various forms of protein, energy malnutrition among Nigerian children.

/13046

CSO: 5400/128

NIGERIA

BRIEFS

CHOLERA OUTBREAK REPORTED IN SAGBAMA--An outbreak of Cholera epidemic has been reported in Sagbama Local Government area of Rivers State. Addressing newsmen at Sagbama town, the zonal public health officer in the area, Dr. M.A.J. Egwu, said three communities, including Bolou Obisiamma and Akebe, had so far been affected by the epidemic. Dr. Egwu said arrangements had been made to get vaccines from Port Harcourt for mass immunisation against the disease in the affected communities. The communities have, however, been advised to take preventive measures to stop the disease from spreading to other areas, he said. [Text] [Kaduna NEW NIGERIAN in English 7 Feb 87 p 9] /13046

CSO: 5400/129

'ALARMING' RISE IN SEXUALLY TRANSMITTED DISEASES

Port Moresby THE TIMES in English 5-11 Mar 87 p 3

[Article by Patrick Matbob]

[Text]

**HEALTH** authorities are worried that sexually transmitted diseases may be getting out of hand.

Statistics released by the Health department show that gonorrhea and syphilis are increasing at an alarming rate in PNG.

The Health department is urgently appealing to people with these contagious diseases to come forward and receive medical treatment.

There were 19,000 cases of gonorrhea reported at health centres in the country in 1985 alone. This is an increase of 15,000 since 1970.

### Alcohol

Similarly, 7,706 cases of syphilis were reported in 1985, seven times more than the 1970 figure.

Current statistics show that the disease is spreading at an alarming rate.

The number of cases since 1980 has more than doubled.

The highest number of STD cases are reported in the five Highlands provinces and the National Capital District. Assistant secretary for disease control Timothy Pyakalyia has warned that the diseases are now getting out of hand.

The sharp increase also relates to sharp increases in alcohol consumption, crime rate, urban drift, unemployment and many other social problems.

Forty-three per cent of the cases are reported in the Highlands provinces alone. The lowest number of cases are reported in Gulf.

### Syphilis

Figures in 1985 show that Western Highlands province tops the list with 3,468 cases of gonorrhea and 2,127 cases of syphi-

lis, followed by Eastern Highlands with 3,336 gonorrhea and 1,525 syphilis cases. National Capital District is next with 3,278 cases of gonorrhea and 1,176 syphilis cases.

Gulf has reported 33 gonorrhea and six syphilis cases.

Dr Pyakalyia said that the pattern in the rise of STD diseases were similar to the rises in alcohol consumption and other social problems.

Statistics show that beer production and imports more than doubled in 1975 from six million gallons to more than 12 million in 1980.

He also warned that PNG would face serious consequences if there was an outbreak of AIDS in PNG. "The last thing we want is another disease like AIDS," he said.

/9317

CSO: 5400/4340

**MARKED INCREASE IN MALARIA NOTED**

Port Moresby THE TIMES OF PAPUA NEW GUINEA in English 12-18 Mar 87 p 3

[Article by Patrick Matbob]

**[Text]** ALL common diseases in PNG have shown an increase over the years despite attempts by the Health department to control them.

And most significant is malaria, the second biggest killer disease, according to figures from hospitals in the country.

The figures also reveal that the malaria incidence has been increasing despite spray programmes and a malaria control set up to fight the disease.

Blood slide examinations in 1970 show that out of 172,410 samples taken 12,178 indicated positive malaria infection.

And in 1985 456,533 slides were taken with 182,545 positive cases which is approximately a 40 per cent increase. And in all the cases, *P. Falciparum*, the killer malaria parasite was predominant in the positive blood slides. It was 47.8 per cent in 1970 and 78.6 per cent in 1985.

The national government has allocated more than K1 million for the malaria control programme for the province this year. Last year's allocation was more than K3 million.

Attempts to eradicate malaria by spraying has proved ineffective in the last two decades and in 1983 spraying was withdrawn in all areas. Figures proved that the malaria situation in sprayed area is particularly the same as that in the unsprayed area and malaria outbreaks also

occurred in the sprayed area as well.

**Response**

The poor response of malaria to the DDT chemical was due to the deficiencies in operation and field supervision, resulting in insufficient coverage both in quality and quantity.

According to the Health department, if residual house spraying is to be effective, it requires a certain level of perfection, depending on the malaria endemicity and malarigenic potential. The level of perfection is determined by regularity in the spraying cycle, sufficient dosage on a given unit of surface, the coverage of sprayable surfaces within a house and the coverage of houses against the total existing houses in areas to be sprayed.

Apparently, these basic requirements have not been met in the malaria control programme in PNG.

/13046

CSO: 5400/4342

MALARIA CONTROL BY REDUCING MAN-MOSQUITO CONTACT

Beijing CHINESE MEDICAL JOURNAL in English Vol 99, No 11, Nov 86 pp 879-884

[Article by Liu Yinlong [0491 0092 7893], Wu Kaichen [0702 7030 3819], Institute of Parasitic Diseases, Chinese Academy of Preventive Medicine (CAPM); WHO Collaborating Center for Malaria, Schistomiasis and Filariasis, Zhang Fushi [1728 6534 0013], Anti-epidemic Station, Pixian County, Jiangsu Province, Zhang Yigong [1728 1150 0501], Anti-epidemic Station, Jiangsu Province, et al.: "Integrated Approach to Malaria Control Emphasizing Reduction of Man-Mosquito Contact"]

[Text]

This study was carried out from 1980 to 1985 in Daishan Township, Huang-Huai Plain, a vivax malaria endemic area transmitted by *Anopheles sinensis*. Since the 1950's construction of an irrigation system and water conservancy works and expansion of rice fields have brought increases both in human-mosquito contact and in the vectorial capacity of the plain. Consequently, the number of malaria cases increased greatly and mass drug administration (MDA) alone did not bring about malaria control. Considering the bionomics behaviour of *An. sinensis*, the sole vector of malaria transmission, the villagers' habits and local conditions, an integrated approach was undertaken on trial and assessed parasitologically, serologically, and entomologically. The approach included urging the villagers to sleep indoors and to use mosquito-nets, improving ventilation in houses by installing back windows and reducing the human infection source by MDA and case treatment.

The annual parasite incidence (API) of malaria decreased from 180.8% in 1980 to 0.5% in 1985. Although MDA was stopped in 1983-1985 malaria incidence continued to decrease, proving that reduction of human-mosquito contact can decrease the man-bite rate, the human blood index, the vectorial capacity of *An. sinensis*, and the malaria transmis-

sion rate. Field trial of the integrated approach is successful for malaria control in the area tested.

The Huang-Huai Plain, a densely inhabited area, is the main endemic area of vivax malaria transmitted by *Anopheles sinensis*. Since the 1950's the extention of rice-field and construction of irrigation systems and water conservancy works increased the *Anopheles* mosquito population. Some locals have the habit of sleeping outdoors during the hot season which facilitated malaria transmission.

There were two epidemic outbreaks recorded in 1960 and 1970. Mass drug administration in the non-transmission season and mass chemoprophylaxis during the transmission season brought about marked decreases in malaria incidence initially but this is difficult to sustain in consecutive years and once MDA stopped, malaria resurges.<sup>1,2</sup> The problem was how to control malaria incidence permanently in the area.

Since *An. sinensis*, the main malaria vector, is exophilic and resistant to insecticides, indoor residual spraying is not so effective as with endophilic species. Considering the vector bionomics behaviour and the local sociocultural

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Partial financial support was received from the UNDP/WORLD BANK/WHO TDR.

and economic conditions, the integrated approach to malaria control was undertaken. This included environmental management, reduction of human infection sources and man-mosquito contact, stressing the last measure.

#### MATERIAL AND METHODS

**Study area.** Daishan, Pixian County, a township in north Jiangsu Province, with an approximate population of 26,000, located at 34°21' latitude N and 118°02' longitude E, was selected as the best trial site. It has 11 administrative villages including a total of 129 natural villages. Since the 1970's ricefields have been extended, accounting for 30-50% of all the cultivated area. Most of the villagers lived in low houses without back windows for cross ventilation and often slept in the open during the hot season. Less than half the population used mosquito-nets. There was a town health center and each administrative village had their own health post with 3-5 country doctors. During 1972-1975, mass drug treatment and chemoprophylaxis and blood film examinations of febrile patients followed by case treatment were conducted and the malaria incidence fell from 62.5% in 1971 to 0.7% in 1975. But when medication was stopped in 1976-1980, the incidence bounded to 18.1% in 1980.

**Control measures.** The study was divided into three stages: (1) Preparatory stage, 1980. Base line data was gathered and control measures similar to those applied in previous years, i.e. drug administration during the non-transmission season to those who had a history of malaria the preceding year. (2) Operational stage (1981-1982), reduction of the human infection source by out of season treatment of malaria cases and in season universal chemoprophylaxis, with intensified case detection among febrile patients by blood film examination so that early diagnosis and prompt treatment was possible; motivating the villagers to use mosquito-nets and changing the locals' habit of sleeping outdoors by distributing mosquito-nets and installing back window to create cross ventilation in the houses; advising

villagers to keep livestock near their homes to keep the Anopheles mosquitos from attacking man; providing adequate supplies of safe drinking water and popularizing methane-generating pits to dispose of garbage. (3) Assessment stage (1983-1985), stopping mass year round medication but continuing case detection among febrile patients and reducing man-mosquito contact.

**Assessment methods.** The results were assessed parasitologically, serologically, and entomologically. (1) The mosquito-net use rate (MNUR) and rate of sleeping outdoors (SODR) were investigated several times a year; (2) Malaria incidence was recorded yearly; (3) the parasite rate was estimated twice a year in a 700-900 person sample population; (4) Indirect fluorescent antibody test (IFAT) was conducted once a year with *P.cynomolgi* as antigen using a positivity titer of 1:20 serum dilution as the criterion; (5) the mosquito man-biting rate was simultaneously observed in two ways: night biting of human bait, representing those without mosquito-net protection and determination of the ratio of mosquitoes to the number of people inside 50 mosquito-nets plus average number of mosquito bites from 8 to 10 p.m. the previous evening, representing cases with mosquito-net protection; (6) the human blood ratio was obtained by identifying blood meals of *An. Sinensis* caught in specified places, e.g. cattle-sheds, pigstyes or bean fields by precipitin ring test. The ratio was also regarded as the human blood index in mosquitoes caught in bean fields.

#### RESULTS

**Use of mosquito-nets.** As shown in Table 1, the MNUR since 1981 was more than 85%, and the SODR dropped to less than 10% while the MNUR was as low as 47.4% and the SODR as high as 43.3% in 1977.

**Malaria incidence and parasite rate.** The annual blood examination rate (ABER) from 1980 to 1985 was 69.3%, 68.2%, 53.4%, 51.3%, 40.6% and 45.8% respectively. During 1981-1982 when mass chemotherapy and chemoprophylaxis

Table 1. Mosquito protection in Daishan, 1977-1985

Year	No. Investigated	MNUR (%)	SODR (%)
1977	214	67.4	43.3
1979	11,856	78.9	22.9
1980	2,883	77.3	8.3
1981	4,872	98.8	8.1
1982	5,119	94.2	8.1
1983	5,242	98.6	7.9
1984	6,288	91.8	8.7
1985	5,250	92.8	4.8

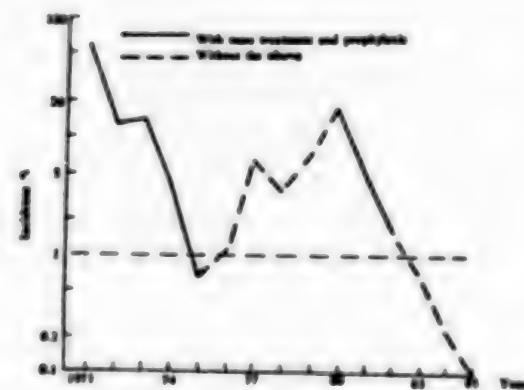


Fig 1. Daishan malaria incidence, 1971-1985.

were conducted, malaria incidence decreased from 180.8% in 1980 to 51.3% in 1981 and 15.3% in 1982. During 1983-1985 when mass treatment and prophylaxis were stopped, the incidence continued to decrease to 0.67%, 0.23% and 0.05% (Fig 1).

The parasite rate, investigated twice a year was zero in 1984 and 1985 (Table 2).

**Distribution of cases and transmission rate.** The proportion of natural villages with malaria cases during 1982-1985 was 89.9%, 73.1%, 37.8% and 9.0%, compared with 100% during the first two years of the study. The residual foci of transmission were distributed sporadically.

The transmission rate is expressed by the ratio of the total number of cases during the

Table 2. Daishan malaria parasite rate, 1980-1985

Year	June		October	
	No. examined	Parasite rate (%)	No. examined	Parasite rate (%)
1980	796	0.71	787	1.34
1981	789	0.39	787	0.39
1982	794	0.14	800	0.14
1983	801	0	799	0.13
1984	803	0	803	0
1985	812	0	810	0

Table 3. Transmission rate and mosquito in the population of Liantan Village, 1977-1985

Year	Cases July 1 - July 31 (1)	Total cases July 1 - Oct. 31 (2)	Transmission rate 1980 (2/1)	MNUR %
1977	3	177	59.0	67.4
1979	4	134	30.4	78.9
1980	0	281	31.2	77.3
1981	3	281	10.3	98.8
1982	1	28	3.6	94.2
1983	1	13	7.7	94.2
1984	1	8	6.3	91.8
1985	0	8	0.0	92.8

transmission season which lasts about 120 days to the number of patients reported in the first 20 days of the season. In Liantan village where chemoprophylaxis had not been given since 1980, the transmission rate decreased with the increase in MNUR. The correlation coefficient was -0.97 (Table 3). The transmission rate was 2.0 in 1985, compared with 31.2 in 1980 and 59.0 in 1977.

**Indirect fluorescent antibody.** IFAT was conducted in October, the late part of the transmission season. The positivity rate and geometric mean reciprocal titer in positives (GMRT in positives) declined yearly after 1980. In children under 15 years of age the downward trend of the positivity rate correlated well with the incidence (Table 4, Fig 2).

Table 4. IFAT Results in Daishan, 1980-1985

Year	Age < 15			All age groups		
	No. tested	% Pos.	GMRT in Pos.	No. tested	% Pos.	GMRT in Pos.
1980	160	33.8	73.49	813	31.5	73.42
1981	163	33.7	73.37	813	31.8	73.78
1982	277	33.2	73.44	799	33.0	73.54
1983	223	33.4	73.00	718	33.8	73.84
1984	296	33.6	73.20	807	33.8	73.66
1985	364	33	73	804	33.5	73.14

Table 5. Comparison of *An. sinensis* man-bite rate with or without mosquito net protection in Daishan, 1980-1985

Year	Mosquito protection				No. mosquito protection			
	July	Aug.	Sept.	Average	July	Aug.	Sept.	Average
1980	43.9	48.1	38.3	41.2	39.9	38.9	33.3	33.9
1981	38.3	33.3	34.4	34.3	2.8	38.8	4.1	3.9
1982	8.2	34.8	34.2	34.0	—	8.8	7.4	—
1983	2.2	18.2	42.0	22.8	1.8	9.8	19.4	8.3
1984	1.4	4.2	5.2	4.2	0.8	2.8	2.7	1.8
1985	32.2	47.2	37.0	39.4	12.1	33.2	33	33.2

**Man-bite rate.** Estimation of the man-bite rate is shown in Table 5. This rate decreased at least by 50% in those with mosquito-net protection, compared with those without.

**Human blood ratio.** A negative linear association was found between the human blood ratio of *An. sinensis* collected from animal sheds and population MNUR ( $r=-0.96$ , Table 6).

Table 7 shows the human blood ratio index for *An. sinensis* collected from bean fields, the ratio was low. Vectorial capacity was estimated by the parameters observed. MNUR, mosquito man-bite rate, human blood index and vectorial capacity are recorded in Table 8. Vectorial capacity in villages with lower MNUR was 6.8 times that of villages with higher MNUR (Table 8).

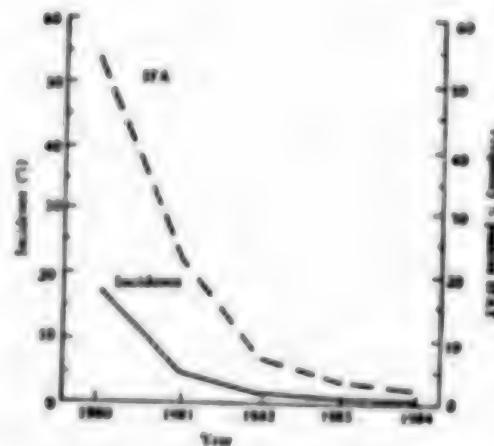


Fig 2. Frequency of positive IFAT among those under 15 years of age and yearly incidence in all age groups in Daishan.

**Table 6. Precipitin ring test on *An. sinensis* collected from animal sheds and MNUR of Delishan, 1980-1985**

Year	No. % positive	No. %	Human blood index	
			No. positive	No. %
1980	1,563	21	1.24	71.3
1981	813	6	0.49	61.8
1982	1,163	3	0.34	94.3
1983	913	2	0.22	91.9
1984	441	1	0.22	91.3
1985	288	1	0.22	91.3

**Table 8. Comparison of vectorial capacity of *An. sinensis* with and without protection from mosquitoes**

MNUR %	SDMR (%)	Man-bite ratio (ma)	Human blood index	Man-bite habit (%)	Daily survival (%)	Sporogonic cycle (%)	Vectorial capacity (ma <sup>2</sup> pn) -Imp
0.1	38.4	7.9	0.217	0.0000	0.019	11	0.364
0.0	3.7	0.87	0.003	0.0132	0.019	11	0.019

demic broke out, mass treatment and prophylaxis brought the disease incidence temporarily to quite low levels of about 1%. Control can be maintained, or even enhanced only when more attention is given to reducing man-mosquito contact and environmental management. This has been proved by our field trial in Delishan and the experience is thought to be useful for other places in the area.

Some previous studies reported that the human blood index of *An. sinensis* was as high as 0.26 and 0.28 in outdoor shelters when the population lacked protection from mosquito bites. Mosquito human blood ratio in animal sheds decreased with reduction in man-mosquito contact.<sup>14</sup> Our study confirms that mosquito human blood index dropped from 0.22 to 0.04 after emphasizing reduction of man-mosquito contact. Decreases in human blood index and man-bite rate cause a decrease in vectorial capacity hampering malaria transmission.<sup>5</sup>

#### Implementation of the integrated approach

**Table 7. Precipitin ring test on *An. sinensis* collected from bean fields of Delishan, 1983-1985**

Year	No. test	Pos. to man	Human blood index
1983	829	22	0.041
1984	381	13	0.043
1985	948	22	0.033

#### DISCUSSION

Our integrated approach to malaria control included environmental management, reduction of man-mosquito contact and human infection source. When the incidence was high or an epi-

to malaria control needs a health infrastructure by which villagers are taught malaria symptoms, transmission, treatment and prevention. The system also is important to collecting blood films of febrile patients for examination and drug administration. With early diagnosis and prompt treatment, the human infection source can be controlled and kept very low.

In 1978, the International Conference on Primary Health Care (PHC) held in Alma-Ata, USSR,<sup>6</sup> issued a statement on the aims and objectives for orienting national health systems towards a primary health care system. A basic tenet of the declaration was, communities must participate in PHC. Our experience also demonstrates that community participation is one of the most important factors in controlling malaria.

**Acknowledgement:** The authors would like to thank Professor Mao SP, Honorary Director, Institute of Parasitic Diseases, Chinese Academy of Preventive Medicine, for his encouragement, support and advice in this study.

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/6091  
CSO: 5400/4116

## SANDFLY CONTROL IN BEIJING SUBURBS

Beijing CHINESE MEDICAL JOURNAL in English Vol 99, No 11, Nov 86 pp 920-923

[Article by Xu Chibiao [6079 3589 3577], Deng Zhichang [6772 1807 2490], Chen Wenkai [7115 2429 1956], Zhong Huilan [6945 1920 3482], Beijing Tropical Medicine Research Institute, et al.: "Studies on the Habitat of Phlebotomus Chinensis in Beijing Suburbs." This investigation received financial support from the UNDP/World Bank/WHO Special Program and Training in Tropical Diseases.]

### [Text]

The habitat of sandfly vectors of kala azar was studied in the hilly endemic area of Miyun County in the Beijing suburbs in 1979-1980. The results demonstrate that *P. chinensis* sandflies live predominantly in the wilderness and outdoors rather than indoors. These findings are of practical importance as they point out the pertinent places for spraying insecticides to control these sandfly vectors.

Before 1949, kala azar was prevalent in Beijing and 15 provinces in China.<sup>1</sup> After relentless and continuous anti-kala-azar campaigns including mass surveys and mass free treatment of patients, mass destruction of dogs (important reservoir host) and widespread spraying of insecticides to eliminate the sandfly vectors, the disease was gradually brought under control after 1958. But during the cultural revolution, all health stations in Miyun and its adjacent counties were closed down and their staff members disbanded. Spraying of insecticides and killing of dogs also suddenly stopped. Consequently, sporadic cases of kala azar occurred in Miyun County between 1967-1974. The kala azar unit of the Tropical Medicine Research Institute initiated these studies during an epidemiological

survey of kala azar with the aid from colleagues of the Health and Anti-Epidemic Stations of Beijing Municipality and of Miyun County, entered deep into the endemic area and controlled the diseases after 1975. Studies on the habitat of the sandfly vectors were carried out in the endemic area in Miyun County in order to find effective measures for controlling them. The results follow.

General situation of the endemic localities studied in Miyun County. Surveys were carried out in Xiayu village in Miyun County in the northeast suburbs of Beijing near the Great Wall, where 5 kala azar cases ~~came~~ 4 between 1972-1974. The village is located on the east bank of the Miyun Water Reservoir in the hilly area, 150 meters above sea level, with a total population of 1,484 distributed in 284 households.

Survey on species of sandflies. Altogether 6,748 sandflies were caught between 1979-1980 from various localities in the village including farmer's homes, livestock sheds, mills, classrooms, small hill caves (Fig 1), under bridges, etc. These flies were dissected and examined with regard



Fig 1. Cave on the hill beyond the village where *P chinensis* sandflies were abundant, specimens were caught.

to their classifications which fall into the following 4 species: *P chinensis*, *P mongolensis*, *S squamirostris* and *S khawi*. The latter two belong to the recumbent hair group which do not suck human or mammalian blood. *P chinensis* has been proved to be the main transmitting vector of kala azar in Beijing and most of endemic areas in China, and *P mongolensis* has been shown to be of much less importance as a transmitter.<sup>2-3</sup>

**Seasonal distribution and density of *P chinensis*.** According to our observations, adult *P chinensis* appear in the second 10 day period of May, the incidence gradually reached a peak in mid-June. The second peak of *P chinensis* is less clear-cut as shown in Fig 2. They gradually decrease and finally disappear at the end of September. *S squamirostris* and *S khawi* occur earlier, diminish later than *P chinensis* and their second peak is more prominent than the peak occurrence of *P chinensis*.

Fig 2 shows that the entire season of *P chinensis* does not exceed 140 days, though that

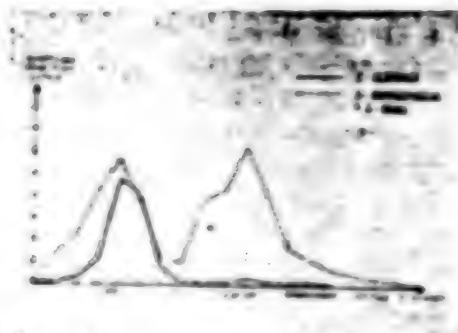


Fig 2. Seasonal variation of sandflies in the endemic area studied.

of *S squamirostris* and *S khawi* may be as long as 180 days. The second peak of *P chinensis* is less clear-cut, but we believe that *P chinensis* occurring after August probably are the second brood as previously demonstrated by Chung (Zhong) et al<sup>5</sup> in Beijing's Western Hills. This agrees with the results of artificial breeding of *P chinensis* in our laboratory.

**Survey of the habitat of *P chinensis*.** Among 2,506 *P chinensis* caught 1,947 (77.7%) were caught from localities far from the village including an abandoned house, an old temple, small caves in hills, rock cracks, etc, 242 (9.65%) from living rooms, kitchens, etc in farmer's homes, and 317 (12.65%) from livestock sheds including stables for cows, horses, asses, donkeys and pig pens (Fig 3). These results demonstrate that the main habitat of *P chinensis* is outdoors, mostly in the wilderness.

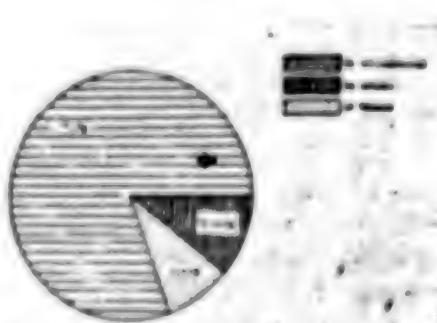


Fig 3. Distribution of *P chinensis* caught in wilderness, sheds and homes.

**Variations of sandfly density within a day.** During the peak sandfly season (mid-June), we observed the density variation of sandflies in a house at different times within the day. The fly density gradually increased in amount after 19:00, and peaked at 23:00. After that time they gradually decreased till dawn, and entirely disappeared in the day time. Nevertheless, considerable numbers of sandflies were found even during the day time in some windless, small dark caves on the hills, or in some small abandoned dark houses with poor ventilation.

**Analysis of blood meals of *P. chinensis*.** In early July 1981, we caught at dawn 260 female *P. chinensis* sandflies which had sucked fresh blood meals in various localities in the village or its environs. They were dissected and their stomachs and other parts of the digestive tract were separated and their blood contents dried on separate filter papers for examination. The recovered dried bloodmeals were separately diluted with distilled water and examined by ring precipitin test or double diffusion. The results are: blood meals of 164 of 260 female sandflies were identified as the blood of cows, 81 as the blood of asses, 6 as the blood of donkeys, 5 as the blood of sheep and 4 as the blood of pigs. Among them, 90 specimens reacted positively with 2 or 3 kinds of anti-sera indicating that under certain circumstances one sandfly could bite and suck the blood of 2 or 3 kinds of animals. No human blood was detected in their bloodmeals.

**Breeding places of instars of *P. chinensis*.** By using the saturated sodium chloride floatation method,<sup>8</sup> altogether 444 soil samples obtained from various localities in the village were examined in May from 1979 to 1980. 124 and 109 of them picked up from the ground inside farmers' living rooms or other rooms and livestock sheds were all negative. But various stages of *P. chinensis* instars were found in 9 of 211 solid samples dug from the cracks of rocks (Fig 4), small caves on hills, abandoned temples or houses far from the village, a positive rate of

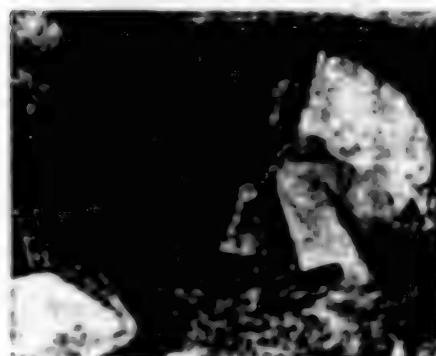


Fig 4. Place where *P. chinensis* instars and pupae were found.

4.27%. All 9 positive samples were dug from the layer 2.5 cm below the ground surface. The soil in this layer was loose, moist and full of organic matter which formed the nutritional supply. *P. chinensis* instars were found with pupae or pupa skin in 2 samples and with *S. aquasirostris* instars in another 2 soil samples.

#### DISCUSSION

About 77.7% of our *P. chinensis* sandflies were caught outdoors, mostly in the wilderness. Their breeding places were also in the wilderness, and bloodmeal analysis of female *P. chinensis* sandflies showed that the blood was mostly from cows, asses, donkeys and sheep. These data indicate that *P. chinensis* sandflies live predominantly outside, mostly in the wilderness. This fact strongly indicates that *P. chinensis* is more exophilic than usual in hilly endemic areas. From the evolutionary point of view, we believe that all sandfly habitats originally were in the wilderness. Mammalian blood sucking sandflies gradually increased in numbers in human homes, adapted to their new environment and became domestic or semi-domestic. The change in social conditions, rising living standards and improved living conditions including improvement of ventilation and brightness of homes, compact mud floors or brick inlaid floors built in the villages after 1949 left little room fit for larvae

breeding. The widespread use of insecticides killed the majority of sandflies inside houses, so those which remained outdoors or in the wilderness ultimately increased, leading to the present situation. Based on the findings, we, in collaboration with our colleagues of the Beijing Health and Anti-Epidemic Station, have improved preventive measures by spraying insecticide in the main habitats of *P chinensis* besides human homes obtaining more satisfactory results in the elimination of sandfly vectors in the endemic area.<sup>7</sup>

We are of course aware of the effect of the changing ecology on the life of sandflies such as destruction of trees or forest and unpredictable climatic changes causing drought or floods in recent years in addition to the influence of differences in topography. All these may make it difficult to rigidly compare our recent statistics with those reported 3-4 decades previously.

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Acknowledgement. We are grateful to Mr. Guo Chang-qing for his photographic services.

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## SOUTH AFRICA

### CAPE RESCUE TEAM IN DANGER OF AIDS

Johannesburg SUNDAY TIMES in English 25 Jan 87 p 8

[Article by Sybrand Mostert]

[Text]

A CAPE Town architect who plunged to his death from a cliff-top last week had not told friends and colleagues that he was a carrier of the killer AIDS virus.

But 30-year-old Mr Wally Banks's terrible secret was revealed this week — causing a furore when it emerged that rescue workers who recovered his shattered body could have been contaminated.

The young landscape architect fell from the spectacular Chapman's Peak Drive just outside Cape Town.

This week, his employer, Mr Johan van Papendorp, said he had known that Mr Banks was depressed but had not been able to find out why.

"Wally was unsettled for a long time and we didn't know what the matter was," he said.

"Towards Christmas and New Year he became very depressed and asked for three weeks' leave to sort himself out.

"I saw him the Friday before his death.

"He was still depressed but gave no indication that he was about to take his own life. He did not tell anyone that he had AIDS.

"I was shocked when I heard how he died."

### Cremation

Meanwhile — in the wake of a rescue mission that in-

volved three emergency medical teams — more stringent measures have been introduced to protect rescue workers from being infected by the blood of AIDS virus carriers.

Five rescue workers who were involved in recovering Mr Banks's body — three Metro team members, a policeman and a Mountain Club member — have had blood tests for the virus.

All equipment used and all clothing worn during the operation have been decontaminated.

And, after a doctor confirmed that the architect was carrying the AIDS virus, extraordinary measures were taken at the cremation of the body.

Following probes by a Cape Town journalist into the possibility of an AIDS connection in the death of Mr Banks, of Higgovale, Cape Town, the province's Administrator, Mr Eugene Louw, issued a statement saying the rescue workers had been exposed to AIDS during the operation, which took place last Wednesday.

Early that morning, Mr John Sharples, a Sea Fisheries Inspector, had been on patrol when he noticed an abandoned red sports car on Chapman's Peak Drive.

The road falls away into sheer cliffs, with the sea beneath.

Mr Sharples told police he had seen a pair of sandals on the edge of the road and had noticed that the keys to the car were still in the ignition.

A Bible and a note were also found in the car.

In his statement, Mr Low said: "In a difficult operation which took several hours, the Peninsula Metro Rescue Unit, The Mountain Club of South Africa and the Department of Sea Fisheries were called in to remove the body.

"The Metro unit assisted members of the Mountain Club in reaching the spot about 6m from the sea where the body had landed, and a Sea Fisheries vessel was called in to take the wrapped body from the rocks to Hout Bay, where an ambulance was waiting."

Mr Low insisted that there was "no possible hazard to the public".

"The family of the patient and the Department of Hospital Services deeply regret any risk to which the emergency personnel have been exposed."

He added that all practical precautions would be taken to prevent a similar incident occurring.

## Talented

Later, a member of one of the rescue teams said all those involved in the operation had been ordered to burn their clothing to prevent infection.

This week, Mr van Pander described Mr Banks as a "talented and valued member of our staff".

"When Wally joined us in August he was unsettled. But nobody knew what was wrong," he said.

"His work was excellent and we gave him a lot of responsible work to do. I now realise that perhaps that was wrong and we put too much pressure on him."

A worker at the Maitland crematorium, where Mr Banks's body was cremated during a small private ceremony on Thursday last week, said that they had been ordered not to open the coffin

before the body was cremated.

"The coffin lid is usually taken off before the operation. In this case we were ordered not to do so — which is highly unusual," he said.

Meanwhile, a member of the National Advisory Group on AIDS, which was given full Government backing this week, has warned that the number of AIDS cases in South Africa has doubled in a year.

## Rate up

"The number of AIDS patients in South Africa has doubled from 24 in 1985 to 50 at the end of December last year," said Dr Frank Spracklen, of Somerset hospital.

"And the figures have not yet levelled off — the rate is still picking up."

He added that the real danger was that for every one case of AIDS diagnosed, there were "about 100" virus carriers who did not know that they were infected.

"Those carrying the virus could suffer from ARCS — AIDS related complex — and only show minimal symptoms," he said.

"It is worrying that those carrying the virus need not necessarily know it — and so would spread the disease unconsciously."

He said the number of AIDS patients had escalated "alarmingly" since the group had started studying and treating the problem in 1982.

"We started with one or two cases then, and the number has been growing steadily."

Dr Spracklen said those infected with the virus could suffer from "flu-like" symptoms which would soon pass, and not be recognised as those of AIDS.

"These are the 'walking warriors' who could pass on the virus," he said.

All of those infected so far had been white males — either homosexuals or bisexuals, he said.

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CSO: 5400/91

COMMENTARY ON AIDS THREAT

Cape Town THE WEEKEND ARGUS in English 24 Jan 87 p 18

[Text]

THE risk run by six Cape Town rescue personnel of contracting the dread Aids disease when they removed the body of a young Aids-carrying landscape architect killed in a fall from Chapman's Peak has once again focussed attention on the seriousness of this "plague of the 20th century".

Aids has caused alarm in many countries, particularly the United States, Britain and Europe, where extensive government programmes have been started to contain its spread and to educate the public in preventive measures.

South Africa, too, has sounded alarm bells, although the disease has not yet struck with the same severity as elsewhere. Indeed, the Government has acted with commendable swiftness by launching a programme this week to combat the spread of the disease.

The dangers of Aids need to be squarely confronted and the public must be made well aware of its consequences. It would be ridiculous to be squeamish or evasive about this.

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GOVERNMENT ADOPTS BLUEPRINT TO FIGHT AIDS

Cape Town CAPE TIMES in English 21 Jan 87 p 1

[Text]

A BLUEPRINT to fight the spread of Aids has been adopted by the Department of National Health and Population Development.

The Minister, Dr Willie van Niekerk, said yesterday that the plan adopted had been drawn up by the National Advisory Group on Aids.

He said the move was a formalization of an Aids control programme which had been in operation for the past two years.

The plan included health education for both the public and health professions, surveillance of suspected victims, identification of "high risk groups" and the provision of health services and counselling to infected patients.

Dr Frank Spracklen, a member of the advisory group, said Dr Van Niekerk's announcement meant that the group, which has no executive powers and no funds, would now have the "clout" of a government department behind it.

He said there had been 50 Aids cases nationally, with 32 deaths. Eleven of the 50 were from Cape Town. Six Capetonians had died of the disease.

Dr Spracklen said it was difficult to say how many Aids Related Complex (ARC) cases had been found in South Africa, as they were not nationally recorded, but he had seen at least 50 people in Cape Town with this form of the disease, of whom one had died.

ARC is a milder form of the full Aids syndrome and is not usually fatal.

He said all the local Aids victims had been either homosexual or bisexual men.

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CSO: 5400/91

**BRITISH HEALTH AUTHORITIES: RSA ON AIDS HIGH-RISK LIST**

Johannesburg SUNDAY TIMES in English 25 Jan 87 p 8

[Article by Jeremy Brooks]

(Text)

SOUTH Africans have been put in the high-risk category in the AIDS crisis by the British health authorities.

Blood donors have been warned not to give blood if they are "practising homosexuals or drug addicts who use needles".

The warning went on to include anyone "who has had sexual intercourse with anyone from Africa south of the Sahara" — immediately lumping South Africa with the rest of the sub-continent.

**Prudent**

A spokesman for the Department of Health and Social Security (DHSS) said: "We realise that South Africa has had only a handful of AIDS victims.

"However, given its position in Africa with the continent's climbing incidence of the disease, we feel it pro-

per to keep South Africa on the list".

The debate on exactly who should be considered at risk was raised this week in an amazing clash between British doctors and the DHSS.

Health authorities were furious at a British Medical Association (BMA) statement warning anyone, heterosexual or homosexual, "who has had causal sex with anyone over the past four years" not to give blood.

**Alarmist**

The BMA later backed down and retracted its statement, but only after three days of public bickering with the government health services.

The health authorities labelled the statement as "alarmist".

They were worried that the new guidelines would cause a substantial decrease in blood donations as regular donors kept away from transfusion centres.

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CSO: 5400/91

NEW AIDS RESEARCH CENTER LAUNCHED

Johannesburg SUNDAY TIMES in English 25 Jan 87 p 8

[Article by Cas St Leger]

[Text]

BEDBUGS are playing a leading role at a new AIDS research centre launched this week on the Reef under the auspices of the Medical Research Council.

The AIDS Virus Research Unit at Sandringham is now spearheading the fight to prevent the plague — described on Tuesday by Minister of Health Dr Willie van Nierkerk as pandemic — from sweeping down central Africa and across our borders.

Bedbugs, as well as mosquitoes and ticks — unattractive creatures unlikely to win the sympathy of animal rights activists — are being infected with AIDS in the laboratory to establish whether their blood-sucking habits can pass on the virus.

The new unit, headed by Professor Barry Schoub, director of the National Institute for Virology and head of the University of the Witwatersrand's virology department, is calling on big busi-

ness to help raise the R1-million needed to finance initial research programmes.

### Carriers

These include the following:

- Development of new diagnostic AIDS tests.
- Production of Human Immunodeficiency Virus (HIV) clones by genetic engineering.
- Population studies of AIDS in Southern Africa.
- Investigation of insects and ticks as carriers.

There is no firm evidence yet that bedbugs can give humans AIDS — but early research has shown they do carry the active virus in their bodies for four hours.

Team member Dr Peter Japp, who carried out pioneering work on the transmission of Hepatitis B by bedbugs, is now working on an answer.

Another important role of the new unit is to assist in the development of more precise AIDS tests. Current methods test antibodies and false positives can sometimes be recorded.

The unit owes its existence

to the efforts of Professor Andries Brist, head of the Medical Research Council which has its headquarters in Cape Town.

For the past 13 months, he has been hammering home to South Africans the message that their tally of 60 AIDS cases gives them no room for complacency.

"It is vital we move now to prevent a catastrophe."

Worldwide, there are an estimated 100 000 people with AIDS, up to 500 000 with related symptoms, and up to 10-million carriers, according to a 1986 report of the Population Information Programme at Johns Hopkins University in Baltimore, America.

"AIDS is rapidly becoming a major public health problem throughout sub-Saharan Africa," the report says.

And the World Health Organisation (WHO) cautions that the AIDS incidence in several cities of central Africa is known to equal or exceed the incidence rates in New York and San Francisco, where there are 72 cases and 60 cases respectively for every 100 000 people.

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CSO: 5400/91

SOUTH AFRICA

BRIEFS

AIDS CASES--Pretoria 3 March SAPA--A stunning 40 percent of a group of Johannesburg male homosexuals tested carried the aids virus--while the dreaded disease was not found in any of the city's female prostitutes. This emerged at a press conference held by the AIDS advisory group [AAG] in Pretoria today. AAG chairman Professor J. Metz said the South African health authorities were trying to prevent aids from becoming the "tremendous problem" it potentially was. Sixty-one aids cases, of which 48 entailed South Africans, were diagnosed until 23 February this year in South Africa, the conference was told. The number of cases have roughly doubled every year since 1982, and 32 South Africans have died of aids to date. [Excerpt] [Johannesburg SAPA in English 1156 GMT 3 Mar 87 MB] /12913

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MEDICAL OFFICER REVIEWS AIDS SITUATION FOR COMMONS UNIT

London THE DAILY TELEGRAPH in English 5 Feb 87 pp 1, 40

[Article by Anthony Looch]

[Text]

**T**HE GOVERNMENT is considering secret tests for the Aids virus on all blood samples taken from hospital patients. The patients would not be told the results.

The possibility of "anonymised testing" of routine blood samples, was disclosed last night by Sir Donald Acheson, the Government's Chief Medical Officer.

He told the Commons Social Services Select Committee that the Cabinet committee in charge of the Government's campaign against Aids was looking at the proposal as a way of estimating the prevalence of the disease in Britain.

He said such testing already took place to establish the incidence of other infections.

Asked by Mr Nicholas Winterton, Conservative MP for Macclesfield, whether such tests were ethical, Sir Donald replied that the results were not communicated to the patients.

He said arrangements were made so that the person conducting the test did not know from whom the blood had come.

"There would be no way in which a person could return to the patient and tell them that they were carrying the Aids virus," he said.

Sir Donald said the secret tests would provide better information about the extent and regional distribution of the disease.

**Limitations  
on information**

He pointed out that the tests would have limitations. There would be no way of finding out how an infected person had become infected, or whether they were heterosexual, homosexual or intravenous drug users.

Sir Donald has spearheaded the Government's fight against Aids, which he has said poses the biggest threat to public health in Britain since the Middle Ages.

He was instrumental in the setting up of the Cabinet committee led by Viscount Whitelaw which oversees the campaign.

Last night he led a team of senior Department of Health officials who gave evidence to the Commons committee on the first day of its public inquiry into the problems associated with the disease.

Sir Donald also disclosed that the possibility of screening migrants from high risk countries, to see if they were carrying the Aids virus, was still being considered by ministers.

### 3,000 cases next year

He told the committee that the practical problems of such testing were considerable, as an answer could not be given in half an hour.

Asked by Mr Winterbottom what he was recommending, Sir Donald replied that his advice to ministers was confidential.

Sir Donald said his department expected 1,300 new cases of Aids in Britain this year, and 3,000 next year. So far there was no projection available for 1989. The majority of the burden would fall on London.

At present, Aids patients in Britain spent about 66 days in hospital between diagnosis and death. It had been found possible in San Francisco to arrange treatment so that patients spent less than 20 days in hospital.

Asked about the risk of contracting Aids from blood transfusions, Sir Donald said: "Our blood transfusion service is as safe as possible. Our estimate of the risk of a unit of blood being

infected in Britain is that it is less than one in a million."

British blood supplies were safer than those in America, where the incidence of Aids was greater.

Mr Winterbottom asked which other countries posed a high risk to visitors from Britain who might need a blood transfusion there.

Sir Donald replied: "We have give advice about certain parts of Africa, where it would be undesirable to have a blood transfusion unless one's life depended on it.

He refused to name individual countries, saying the available information was "uncertain" and any advice given now might soon be out of date.

"It is better for us to give general advice and where people are warned, for them to make their own inquiries," he added.

The reply angered Mr Winterbottom who told Sir Donald that it was "pathetic and dangerous."

Sir David Price, Conservative MP for Eastleigh, said he had heard criticism that the Government's information campaign should have been directed more at the groups identifiable at risk, as there was little evidence that Aids had reached the heterosexual community.

Sir Donald replied: "If we were to wait until that spread had already taken place to any material extent, it would be too late.

"Now is the time to persuade people to consider changing their behaviour, but it is an extremely difficult message to get across."

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CSO: 5440/072

GOVERNMENT PUTS AIDS VACCINE RESEARCH ON 'WAR FOOTING'

London THE DAILY TELEGRAPH in English 10 Feb 87 p 1

[Article by George Jones]

[Text]

**T**HE GOVERNMENT is preparing to give Aids vaccine research wartime priority. A £10 million-a-year programme giving the Medical Research Council directive powers last used to develop anti-malaria drugs in the 1939-45 War is under consideration.

The council, the Government agency for promoting medical research, has traditionally awarded grants for projects which are initiated by scientists and doctors working in British medical institutions.

Research into Aids has been carried out on this basis. However, the special Cabinet committee which is co-ordinating the Government's response now wants to direct funds specifically into the search for a vaccine.

This would enable the council to award research projects on a "contract basis" where a breakthrough is thought most likely. The proposal is understood to have the backing of Mr Baker, Education Secretary, whose Department sponsors the Council, and it is likely to get Cabinet backing shortly.

Medical experts in Britain and America have warned Ministers that there is little hope of either a vaccine or a cure being developed in the next five years. The Government estimates that Aids will kill 4,000 by the end of 1989.

**Time wasted**

Prof Avrion Mitchison, of University College, London, head of the Royal Society's Aids group, said too much time was being spent testing prototype vaccines on animals. "It is time to move into man. Otherwise you are subjecting the population to a grave and unnecessary risk."

As The Daily Telegraph reported yesterday, haemophiliacs injected with blood products infected with the Aids virus are raising hopes that an effective vaccine can be developed.

According to Prof William Jarrett, of Glasgow University, Britain's leading Aids vaccine researcher, it looks as if a group of haemophiliacs who used a contaminated clotting agent have become immune to the virus.

In the latest Government figures, homosexual and bisexual men still form the bulk of Aids cases, with 382 out of the total of 606 having died. Out of 20 heterosexual sufferers 15 have died.

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CSO: 5440/072

DEPUTY HEALTH MINISTER DISCUSSES AIDS IN USSR

PM021212 Moscow LITERATURNAYA GAZETA in Russian 25 Feb 87 p 13

[Interview with G.N. Khlyabich, USSR deputy minister of health and USSR chief state public health physician, by own correspondent L. Zagalskiy, as part of feature under general heading "AIDS: The 20th Century Plague?"--date, place of interview not stated; first three paragraphs are editorial introduction]

[Text] AIDS--that short word has become the symbol of human helplessness in the face of the dangerous disease that struck mankind more than 5 years ago. By 5 December 1986 36,483 cases of this disease had been recorded in 110 countries. Is a global epidemic on the way, or will it be possible to contain AIDS? How soon will a vaccine be created against this disease? Who will be the first to create the necessary drugs?

Dozens of questions face scientists throughout the world today. As yet there are no answers. The disease, which affects a person's immune system, making him defenseless against infectious diseases and tumorous growths, is gathering speed. LITERATURNAYA GAZETA has already talked about AIDS more than once.

Today we present to readers a new report from abroad. [The feature also includes a 1,800-word "abridged translation" of a U.S. NEWS AND WORLD REPORT article on the spread of AIDS in the United States, the means of transmission, and current medical research there.] Our correspondent also interviewed G.N. Khlyabich, USSR deputy minister of health and USSR chief state public health physician, on cases of AIDS in the USSR and the work of Soviet scientists to combat this evil.

[Zagalskiy] Why were the problems of the spread, treatment, and prevention of AIDS not made public in our country for a long time?

[Khlyabich] When information about AIDS appeared in 1981 (from the United States), health workers were naturally alarmed, although there was no information on the clinical features and epidemiology of the disease. We were ready to react promptly if asked. It seems to me that all the tendencies which recently existed, and still exist in part, not to talk about difficult subjects were manifested very clearly on this problem. Nonetheless, when we found out about AIDS, our scientific institutions began to study the problem. In 1985 a well balanced scientific program of research, diagnostics, and preventive work was drawn up. Moreover, in only a few months the highly

complex compound IFA-SPID [expansion of IFA not known; SPID is Russian acronym for AIDS] was developed, and is now being used successfully to diagnose the disease.

[Zagalskiy] How widespread is the disease in the USSR?

[Khlyabich] It is hard to give an accurate answer. It all depends on the standard of diagnostic work and the number of persons investigated for the presence of antibodies to the virus in their blood. But it takes a good deal of time to look at people, to carry out what specialists call primary screening. We have embarked on this path: We have taken analyses from persons who, in our opinion, are most at risk of contracting AIDS. Moreover, screening has been carried out among donors--according to the latest information, AIDS can be transmitted through blood transfusion. As of today, several tens of thousands of people have undergone the IFA-SPID test. The data obtained enable us to say with confidence that AIDS is considerably less widespread in our country than in the United States, the countries of Western Europe, or Africa.

[Zagalskiy] How many people in all are suffering from AIDS in the USSR?

[Khlyabich] Diagnosing AIDS in a patient is a tremendous responsibility. You are telling a person: You have little hope of recovery. So we only make the diagnosis when a group of leading specialists in consultation come to the same conclusion. The problem of AIDS requires a new approach to medical ethics on the part of the doctor. The experience of oncologists is useful here.

The total number affected is 12. Of these, only one is a USSR citizens, and all the others are foreigners.

Today there is also a small group of patients, of the order of 15 people, whom we are keeping under careful observation in order to make an accurate diagnosis. We suspect AIDS, but cannot yet say accurately: There are many other immunodeficiencies, too. Most of this group are foreigners too, but there are a few citizens of our country.

[Zagalskiy] According to the predictions of a special scientific commission in the United States, headed by Nobel Prize winner D. Baltimore, there are already some 1.5 million people in America who are carrying the AIDS virus. By 1991 the number having contracted the disease will be 270,000, and by that time 179,000 will have died. Do you not think we should sound the alarm today, while we still have relatively few cases?

[Khlyabich] V.M. Zhdanov, academician of the USSR Academy of Medical Sciences, has made calculations from which it is clear that in our country hypothetically 1 person in 100,000 could have the disease. The brief period of observation of this disease does not yet allow us to make better founded estimates of its true prevalence, so it would be very bold to give specific figures.

The main danger is still that AIDS may be brought into the USSR and Soviet citizens infected by foreigners, primarily those of African origin. The incidence of infection and disease in a number of countries on the African continent is very high, and there the disease is serious and frequently has a fatal outcome. Scientists suggest that in our country and a number of Scandinavian countries a virus of a slightly different type is involved, which is considerably "milder," if I can put it like that, and produces fewer fatalities.

Nonetheless it is necessary to take account of the real situation. The latest research in AIDS shows that the virus can be transmitted through the blood, so all measures connected with blood donation and transfusion should be constantly monitored.

[Zagalskiy] Does this mean that a special AIDS analysis laboratory should operate at every blood transfusion center?

[Khlyabich] Yes.

[Zagalskiy] Which scientific and therapeutic institutions are working on the problems of diagnosis, treatment, and prevention of AIDS?

[Khlyabich] At present around 40 scientific institutions are involved in this problem. Chief among them are the USSR Ministry of Health Immunology Institute, the USSR Academy of Medical Sciences Scientific Research Institute of Virology, the Scientific Research Institute of Virus Preparations, and the USSR Ministry of Health Central Scientific Research Institute of Hematology and Blood Transfusion and Central Scientific Research Institute of Epidemiology. But that is not enough. If only these institutions were engaged in tackling the problem, we would never stop AIDS. Measures have now been drawn up to cover all blood transfusion centers, health and epidemiological centers, and infectious diseases departments of hospitals. That is to say, the most important problem that the USSR Ministry of Health is tackling is to set up diagnostic laboratories. They will screen all donor blood and patients' blood. All hospital inpatients having the relevant symptoms (enlarged lymph nodes, prolonged fever, weight loss, and also certain indications in the blood which can be seen during normal analysis) will undergo investigation for the presence of antibodies to the AIDS virus. Thus, the country's existing system for combating infectious diseases (which is what AIDS is) will carry out the necessary preventive and diagnostic work.

[Zagalskiy] How will the question of foreigners coming to the USSR be tackled?

[Khlyabich] As yet this question has not been legally settled, which, incidentally, is the case throughout the world.

[Zagalskiy] What funds are being allocated for combating AIDS?

[Khlyabich] We undoubtedly have the world's strongest service for combating infectious diseases. If a new disease appears, it is simply necessary to make

certain amendments within the framework of the service. On the whole the system works, and there is no need to change it. When the question of AIDS was discussed in the government, surprise was expressed that we organizers of the health service had not requested the huge funding that scientists and doctors throughout the world are today demanding in order to combat this disease. We believe that in our country epidemiological surveillance is relatively strong. So ordinary, everyday, systematic work lies ahead for epidemiologists and clinicians: It is necessary to find the AIDS patient and discover his contacts so as to stop the spread of infection before an epidemic breaks out.

[Zagalskiy] Do we have enough AIDS specialists?

[Khlyabich] It is well known that the USSR has the largest number of doctors in the world. But there are clearly not enough who have been trained in AIDS. We intend to resolve this problem in the near future. As for the necessary funds, the health service has acted in the way that a family usually acts when something has to be bought urgently: The family simply redistributes its budget, so as not to suffer inconvenience. Naturally, small additional appropriations were needed to. These were speedily allocated. Moreover, we were told that if more funds are needed, they will be provided. Nobody is exaggerating the urgency of the problem, but it must not be understated either.

Of course, the health service is not the wealthiest sector today. Its material and technical base needs improving. But I see this not as a problem afflicting us, but as something we are ourselves to blame for. We must make firmer demands and insist on the resolution of urgent problems. I know from my personal experience that medicine is always viewed sympathetically at all levels.

[Zagalskiy] Where are the AIDS sufferers?

[Khlyabich] We have three clinical centers. Here the patients are kept under observation, and if necessary hospitalized. The Ministry of Health plans to organize a specialized inpatient unit with specially trained staff, where patients from all over the Union will be hospitalized too. Moreover, special units will be set up in isolation hospitals.

[Zagalskiy] The whole world is struggling to tackle the problem of creating a vaccine against AIDS. A mass of scientific publications are coming out and people hopefully await results. Have Soviet scientists had any success?

[Khlyabich] We are often criticized for lagging behind the foremost world developments. Perhaps we are not criticized for nothing. But in this case I think we are up to the level of the most up-to-date research. I would like to stress that today our country's immunology and bioengineering are capable not only of keeping up with the level of research in the leading countries, but even taking the lead in world science. All that is needed is a concentration of efforts by scientists of different specialities and a high sense of responsibility and discipline on their part. The evidence is the important fundamental research done by virologists and immunologists, as well as the creation of an extremely effective diagnostic tool, which I have already spoken of.

[Zagalskiy] Is that an original development, or did we make use of existing foreign methods?

[Khlyabich] Unfortunately we had to invent our own "bicycle." The firms which produce diagnostic tools for identifying AIDS for the world market kept their work so secret that we could obtain virtually no information, although we went to the firms involved. Suffice it to say that the firm Abbot (Chicago) has turned out 12 million diagnostic kits. If, by simple arithmetic, you multiply those 12 million kits by the 4-5 dollars that each one costs, you can see what colossal sums of money Abbot has earned. At the time we began to develop IPA-SPID, only two firms in the world were producing diagnostic preparations: Abbot, which we already know about, and Organon (Netherlands).

[Zagalskiy] Why did the foreign firms behave in that way? After all, the AIDS problem affects all mankind, and they could have been more humane in their approach to people living in other countries.

[Khlyabich] When it is a question of net profit, there can be no question of being humane in the business world. True, the WHO has now begun to organize international cooperation (the International European Association for AIDS, with a center in Paris, has been set up). Cooperation in science will certainly bear fruit. But a few years ago we were forced to start alone. The development of the diagnostic technique naturally proceeded on the basis of the virus isolated in our country's own laboratories, and the preparation was created in an exceptionally short time.

[Zagalskiy] If our diagnostic preparation is compared with foreign equivalents...

[Khlyabich] Before issuing the order for the introduction of the IPA diagnostic method into practice, we carried out two state tests. The result was unequivocal: The diagnostic preparation showed identical sensitivity and effectiveness. The scientists' work must be noted: The diagnostic preparation was created in the USSR by the collectives led by USSR Academy of Medical Sciences Academician V.M. Zhdanov and O.G. Andzhaparidze.

Moreover, USSR Academy of Medical Sciences Academician R.V. Petrov and a group of scientists have developed a preparation based on chemical synthesis. No similar preparation exists anywhere in the world. This is a priority development. R.V. Petrov's method releases the production of the diagnostic kit from the need to cultivate the virus. Such work requires special conditions for the work of microbiologists. Petrov has made it safe.

[Zagalskiy] Has anyone asked us for this preparation?

[Khlyabich] I'll say! They are giving us no peace. We are now producing it on an industrial scale. Moreover, as in other countries, we are carrying out extensive research to obtain a vaccine and treatment preparations.

[Zagalskiy] Has anything been developed in the world yet?

[Khlyabich] Not yet, unfortunately. The treatment of AIDS is symptomatic. Developments are taking place in three directions: suppressing the virus, stimulating the immune system, and treating the diseases associated with AIDS. The results are modest as yet, although there are hopes. The most active today is the preparation azidothymidine, which the Ministry of the Medical and Microbiological Industry is beginning to produce. Of the immunostimulants, interleukin-2 and T-ACTIVIN, developed in the USSR and abroad, show some promise. The treatment of the concomitant diseases is not very successful. In a word, as yet there are no radical means of treating AIDS, and it will probably take at least 5 years to develop a means of prevention—a vaccine.

[Zagalskiy] No doubt the USSR Ministry of Health has had to bring in other ministries and departments to work on AIDS. How have they responded to the requests?

[Khlyabich] I repeat: In the next 2 years all donor blood in the USSR will be checked. But it will be possible to organize screening in such a short time provided that the Ministry of the Medical and Microbiological Industry and the USSR Ministry of Instrument Making, Automation Equipment, and Control Systems are conscientious about fulfilling the tasks set. They must organize intensively the production of the necessary instruments—the spectrophotometers used in diagnosis. Both ministries have declared their readiness fully to satisfy the requirements of the USSR Ministry of Health. I think they will fulfill their promise. There are several million donors in the country. Investigating them will require some 5,000 instruments. In terms of the total volume of medical equipment, that is a drop in the ocean. The instruments have already been created, I have had models on my desk, all that is needed is to organize production. Substantial assistance is now required from the USSR Ministry of the Chemical Industry to develop pure reagents and supply them to medicine. Diagnosis is impossible without them.

Another difficult question that is much discussed is the almost complete lack of disposable syringes. The leaders of the aforementioned ministries have assured us that by the end of the 5-year plan medicine will be able to go over almost entirely to disposable syringes.

While one can speak of an ardent desire on the part of the Ministry of the Medical and Microbiological Industry and the USSR Ministry of Instrument Making, Automation Equipment, and Control Systems to help the doctors solve the AIDS problem, it is simply impossible to find a common language with a number of the leaders of Moscow Oblispolkom. They evidently do not understand the importance of the problem. For 2 years now we have been unable to resolve the question of modernizing the special immunological clinic where an important preparation will be produced. Perhaps after reading this, they will take the necessary measures, realizing the full importance of the problem we are dealing with.

[Zagalskiy] What can you recommend by way of individual prevention?

[Khlyabich] All the generalities of epidemiology apply to AIDS as much as to other diseases. The means by which it spreads are known to us, on the whole: The virus is transmitted from a sick person to a healthy one through sexual contacts or through the blood. I have already spoken of the general medical measures for preventing AIDS.

We are beginning wide medical education of the population. We propose to set up a confidential AIDS telephone line so that people can call and find out about symptoms that are worrying them. Anonymous tests will be introduced for those who want them. We plan to issue special health education publications. I want to stress again: AIDS is a new, very complex problem facing mankind. Unfortunately diseases do not recognize borders. We must be prepared to meet the virus fully armed.

/6662

CSO: 5400/1005

DOCTOR INTERVIEWED ON AIDS IN USSR

FM251601 Moscow SOVETSKAYA ROSSIYA in Russian 20 Feb 87 First Edition p 6

[Interview with Doctor of Biological Sciences I.D. Drynov, deputy chief of the USSR Health Ministry Main Administration of Quarantineable Infections, by A. Nemov under the rubric "On AIDS Problems": "Blocking the Virus"; first paragraph is SOVETSKAYA ROSSIYA introduction]

[Text] On the "Medicine for All" page (11 February 1987) we dealt with scientists' contemporary view of AIDS--Acquired Immune Deficiency Syndrome. Today our interlocutor is Doctor of Biological Sciences I.D. Drynov, deputy chief of the USSR Health Ministry Main Administration of Quarantineable Infections:

[Nemov] Igor Dmitrievich, in the 11 February article we reported that there are isolated cases of AIDS in the USSR. The newspaper's readers ask for more precise details as to what "isolated cases" means.

[Drynov] To begin with, I will point out that according to official WHO statistical data, as of 1 January 1987, AIDS cases had been recorded in 110 countries. In the Soviet Union there are 12 patients--foreigners--while among Soviet citizens there is 1 female patient and 6 people suspected of having the disease.

The Soviet citizens have been placed under medical observation, while the foreigners have gone home for further investigation and treatment.

An effective package of diagnostic means has now been drawn up to bring the disease to light.

[Nemov] In many letters received in the editorial office readers express concern--are we not too self-confident when we say that the disease is not expected to become widespread in the USSR? For it is a very dangerous and insidious ailment.

[Drynov] We devote very close attention to the AIDS problem. Our chief concern is to be ready to prevent the spread of the disease. The country's major scientific research institutes--the USSR Academy of Medical Sciences Institute of Virology, the USSR Health Ministry Institute of Immunology, the Central

Scientific Research Institute of Hematology and Blood Transfusion, and many others--were involved in work on this subject as long ago as 1983.

At the start of the work we were provided with some strains of AIDS viruses by foreign scientists--Professor Montagnier (France) and Doctors Gallo and (Levi) (United States). Strains of viruses were subsequently obtained from patients brought to light by us. Taking into account the dangerous nature of the disease and the possibility of its rapid spread, there was an urgent need to develop a package of diagnostic means. Why do I say package? The point is that initial screening--analysis to determine antibodies to the AIDS virus in a person's blood--only makes it possible to reveal the risk group, that is, those people who have been infected and who could fall ill. (Of 100 people who react positively to the presence of antibodies, 1 will fall ill.) What is needed to make a definitive AIDS diagnosis is special investigations to assess immunity and the presence of secondary infections in a person.

Research into the nature of the disease, which has been conducted in parallel with the setting up of diagnostics, has answered a number of important questions. It has been established that you cannot contract AIDS from ordinary everyday contact with a sick person--neither from shaking hands nor from being in the same room with him. In this sense there is no comparison between the AIDS virus and, say, the influenza virus. The chief danger of infection is from casual sexual relations, from transfusions of unchecked blood, and from injections. Thus, the directions of preventive work became clear. It was necessary to set up a wide network of equipped clinical immunology laboratories. They are now being set up in all the country's major cities. Then our blood banks have to be checked. As U.S. experience has shown, a significant spread of the disease is associated precisely with these. Several dozen more diagnostic laboratories are now being set up under blood transfusion institutes and at blood transfusion centers to screen donors. The USSR Ministry of Health and the USSR Ministry of the Medical and Microbiological Industry have adopted a decision to increase production of disposable syringes and needles. The millionth batch will be produced already this year. Training of specialists for practical health care has begun. Almost 200 medics were trained in 1986.

As you see, the state is sparing no effort to prevent the dangerous ailment. But these efforts will certainly not produce the expected result if the population remains uninvolved. I will not say a great deal about strict morality, but I will point out that the struggle against AIDS dictates tough laws in this question. And I could also say the same of drug addiction.

[Nemov] What is to be done if someone wishes to be screened for AIDS?

[Drynov] There is nothing reprehensible in this. We at the USSR Ministry of Health, for example, have received such letters--from citizens who have associated their state of health with a possible AIDS infection. They have undergone the necessary screening. But it is not essential to apply to the ministry for such screening. The oblast health department can also resolve this problem through the clinical immunology laboratories that are being organized. Of course, screening is carried out in strict accordance with medical ethics.

[Nemov] What is the position over the development of means against AIDS?

[Drynov] This work is being carried out in several directions. First, drugs which prevent the virus from reproducing once it has entered a person's organism are being approved. Second, preparations are being created to stimulate the immune system. Industrial production of one of these preparations--T-ACTIVIN--has already begun in the Soviet Union.

Approaches to the creation of a vaccine are still being studied. The USSR Academy of Medical Sciences Institute of Experimental Pathology and Therapy is conducting experiments on monkeys, which are sensitive to a close virus.

Medics in the Soviet Union are participating in an international program to combat AIDS. By decision of the WHO the USSR Academy of Medical Sciences Institute of Virology recently became a WHO center for this problem.

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CSO: 5400/1004

**AIDS LABS, INSPECTION SITES BEING ESTABLISHED**

LD201355 Moscow TASS International Service in Russian 0935 GMT 20 Feb 87

[Text] Moscow, 19 Feb [date as received] (TASS)—AIDS can be diagnosed using synthetic substances developed by Soviet scientists. They are more suitable and reliable than the virus of this disease itself, which is being used at present to diagnose the condition. Academician Rem Petrov, director of the Moscow Immunology Institute, told this to a TASS correspondent.

The scientist explained that artificial peptides obtained at the institute have also formed the basis of a new test-system, "Peptoskrin." Industrial production of this has started in the USSR. Explaining the advantages of the new method, the scientist said that synthetic peptides and their production are harmless. They imitate not the whole AIDS virus, but only a fragment of its protein.

The academician said that work is also being done at the institute on the development of an AIDS vaccine. Accordingly, they are trying to utilize the ability of synthetic peptides, like the natural virus, to stimulate the body's efforts to combat infection, he said. Vaccination of mice and rabbits with the artificial vaccine has demonstrated that a large amount of defensive antibodies appear in their blood. This arouses hope of success. A search is also under way in the USSR for medicinal preparations. This is no less difficult a problem, as AIDS essentially disarms the entire defense system, Petrov stressed.

He said that only isolated cases of AIDS have been registered in the USSR, mainly among foreign citizens. But doctors are aware of the extraordinary danger of this little-studied disease and intend to confront it seriously. A network of diagnostic laboratories and a system of epidemiological inspection are being set up in the country. The training of medical specialists on the basis of scientific institutes doing fundamental and applied research in the AIDS field is being organized.

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CSO: 5400/1003

USSR

BRIEFS

AIDS PREVENTION CENTER—A prophylactic center has opened in Moscow where everybody can undergo examination for Acquired Immunity Deficiency Syndrome, AIDS. All the 30,000 people who have undergone such examination have been found healthy. However, the risk of acquiring AIDS, which so far does not respond to treatment, does exist. Twenty foreign citizens have been found to have AIDS virus. Measures are being taken to prevent the disease from spreading in this country. [Text] [Moscow World Service in English 1600 GMT 4 Mar 87 LD] /6662

CSO: 5400/1002

CANADA

BRIEFS

TURTLE LINK WITH SALMONELLA--Kingston (CP)--Ontario health officials are warning people not to keep pet turtles. Dr David Mowat, Kingston's medical officer of health, said traces of salmonella bacteria have been found in 74 percent of pet shop turtle tanks tested across the province. The testing was conducted after the federal government lifted an import ban on turtles, following reports that a United States firm had developed a safe means of sterilizing turtle eggs. Mowat said the sterilization system isn't working. Kingston health officials have offered to visit homes to test turtles but said owners can also take them to a veterinarian. [Text] [Toronto THE TORONTO STAR in English 2 Mar 87 p A15] /9317

MANITOBA EQUINE INFECTIOUS ANEMIA--Winnipeg--More than 400 horses in Manitoba have been ordered destroyed in what is believed to be the worst outbreak of Swamp Fever in the province in 15 years. The virus, equine infectious anemia, was detected in December, said Dr Val Kjernisted, a veterinarian with Agriculture Canada. Few horses die from the virus, which is spread through mosquitoes, but many have to be destroyed because there is no vaccine. Another veterinarian with Agriculture Canada, Dr Ken Slovik, said he knew of only 17 reported cases of Swamp Fever across Canada last year. [Text] [Toronto THE GLOBE AND MAIL in English 2 Mar 87 p A5] /9317

CSO: 5420/19

**CONFERENCE DISCUSSES PREVALENCE OF TICK DISEASE**

Bombay THE TIMES OF INDIA in English 17 Feb 87 p 23

[Text] Bareilly, 16 Feb (PTI)—Many crossbred animals, mainly cattle, are dying due to an incurable parasitic disease in the country, according to reports available at the Indian Veterinary Research Institute (IVRI), here.

The mortality rate has been found to be as high as 50 percent among the cross-bred animals, the reports say.

The disease, first noticed in 1960, has now assumed alarming dimensions throughout the Indian-subcontinent and is posing a threat to livestock production and the milk yield in the region.

The Central government has, for the time being, stopped the import of cattle as the imported animals are highly susceptible to the parasitic infection.

Reports say that the government has, instead, opted for the frozen semen technology to reduce expenditure on importing the exotic breeds.

Theileriosis, the tick-borne cattle disease, is caused by Theileria, a blood parasite, and results in high fever and anaemia, followed by death.

At present, there are no specific drugs available to treat the afflicted animals, the reports say.

The indigenous stocks of cattle act as carriers of the disease and serve as a potential source of transmission to the highly susceptible exotic breeds.

At a two-day national conference on parasitic diseases of animals, which concluded here on Friday at the IVRI, experts said a few drugs had shown "very promising" results in eradicating the disease and they were being tested in various veterinary hospitals in India.

Dr G. Subramanian of the department of parasitology at the IVRI said the institute had come out with a vaccine that could be used as an effective measure against the disease.

The vaccine, which uses the in-vitro tissue culture technique and has a "shelf life period" of three days, is still under trials and will soon be taken to fields to ascertain its efficacy, according to Dr Subramanian.

BRIEFS

GOAT POX SEMINAR—Chinsurah, 27 Feb--A state seminar on "goat pox," organised by the West Bengal Veterinary Association, was held here yesterday. The objective of the seminar was to focus attention on the killer disease which claimed the lives of 3.2 lakh goats in the Hooghly district alone in the past four years, resulting in the consequent economic loss of over Rs 10 crores. Mr Bhabani Mukherjee, environment minister, inaugurating the seminar, said goat pox posed a serious threat to the rural economy as most of them were kept by small, marginal and landless farmers and labourers. [Text] [Calcutta THE TELEGRAPH in English 28 Feb 87 p 2] /9274

CSO 5450/0106

## SMUGGLED BRAZILIAN BEEF SPARKS FOOT-AND-MOUTH ALERT

Dublin IRISH INDEPENDENT in English 3 Feb 87 p 1

[Article by Gerry Mulligan]

[Text]

A MAJOR animal health alert is underway following the seizure in Dublin yesterday of 1.5 tonnes of beef smuggled from Brazil, where foot and mouth disease is epidemic.

The customs seizure at a south Dublin meat plant comes just 11 days after a £250,000 haul of smuggled meat — some of it from Australia — was discovered in cold stores elsewhere in the city.

Department of Agriculture officials will today destroy the 60 cartons of Brazilian beef, valued at around £9,000, as part of a crackdown stemming from fears that black market meat could lead to an outbreak of the devastating foot and mouth animal disease in Ireland.

The meat, said to be top quality cuts, was discovered when customs officers raided a van.

Customs officers, the Department of Agriculture and the gardai are all clamping down on the meat smuggling racket, with major seizures of beef and lamb in recent weeks.

The meat is understood to be smuggled in from Northern Ireland,

having first entered Britain. The fact that meat produced in Australia and Brazil has been seized has led investigators to believe a major international operation might be involved.

Ireland has one of the strictest animal health codes in the EEC. This disease-free status is worth millions of pounds in contracts to the country's beef industry, which had total exports last year exceeding 1,000 million.

The beef from Brazil would never have been legally allowed into Ireland because of the country's foot and mouth disease problem.

• Gardai recovered a £30,000 meat consignment dumped untouched in Ballymun, Dublin, after it had been stolen in a hijacking on the N2 dual carriageway early yesterday.

The beef was being transported to Carlow from Anglo Irish Meat Packers in Dublin when the driver was stopped at gunpoint and bundled into a van by two men. He was released after being held down for some time.

"It is a mystery why the meat was taken and then left untouched," a Garda spokesman said.

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CSO: 5440/071

## IRBID DEALS WITH RAT INFESTATION

Anman JORDAN TIMES in English 26-27 Feb 87 p 3

[Article by Najwa Hajjar]

[Text]

**AMMAN** — A campaign to eliminate hordes of rats in Irbid is beginning to show some results, said Dr. Hamzeh Anaqreh, head of the health affairs section to Irbid Municipality.

A month and a half ago, 70 per cent of the western district in Irbid was infested with rats, said Dr. Anaqreh. He believes that the rats which plagued the area had arrived from Europe and parts of the Arab World in packing materials. "The rats were concentrated mainly near the central market where most trade movement takes place," he said. Norwegian rats, the type in Irbid, invaded homes and stores, and caused considerable material losses. Only one incident of a child being bitten was reported, said Dr. Anaqreh, however this report was not confirmed.

This information was determined during the first part of a campaign to eliminate the rats. The city was divided into blocks and eight teams led by a health inspector from Irbid Municipality conducted studies, questioned the inhabitants and checked homes. Dr. Anaqreh explained that although the area has been

sprayed with poison for the past 12 days, bringing the problem completely under control required a comprehensive campaign.

The second part of the campaign is the health awareness stage underwhich health inspectors, who received training at the Greater Amman Municipality, inform the public about sanitation and the diseases which could be spread by the rodents.

#### Collecting rubbish

To reinforce the health inspectors, rounds are conducted in the cleaning stage to check for rubbish inside and outside homes. "Rubbish which may be a breeding ground for the rodents must be disposed off. To simplify matters and to make sure that the inhabitants comply, we ask them to place the rubbish outside their homes and the municipality will collect it," said Dr. Anaqreh.

The eradication phase encompasses the whole city of Irbid to ensure that the rats will not continue to breed, since one female rat can produce between 2,000 to

10,000 rats a year, he continued.

The fifth and most important part of the campaign is, in Dr. Anaqreh's opinion, the follow up stage. Inspection visits and questioning the public will continue in the area to see if the rats have reappeared "until we reach the two per cent internationally accepted level of rodents in a city," he said.

To eliminate the rats, a poison called Bromodioline Red is being used. The poison is produced locally by the Greater Amman Municipality. Contrary to previous reports, Dr. Adnan Abdul Majed, head of the department for the eradication of rodents and insects at the Greater Amman Municipality, said that they did not withhold the poison from Irbid because of financial disputes between the two municipalities. "In fact, when the rats appeared we sent them (Irbid) one tonne and 200 kilogrammes of poison," said Dr. Abdul Majed. Dr. Anaqreh added: "Fifteen days ago we asked the Greater Amman Municipality for an additional 1,200 kg of Bromodioline Red."

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CSO: 3400/4516

## INCREASE IN YELLOW MOTH REPORTED IN ATLANTIC PROVINCES

Ottawa 4E OTTAWA CITIZEN in English 21 Feb 87 p E2

[Text]

HALIFAX (CP) — Lying in drawer trays, neatly pinned and labelled, the yellow moths look quite pretty and harmless.

Alive, in their caterpillar stage, these voracious insects have the potential to destroy green farmlands in Quebec, Ontario and the West before the decade ends, warns Barry Wright, curator of zoology at Nova Scotia Museum.

Known as yellow underwing moths — their scientific name is *Noctua pronuba* — they feed on transplants and seedlings, generally cutting the young plants off at the ground.

"The danger lies in that the cutworms (caterpillars) would severely reduce the hay crop or forage crops in pastures for cattle," says Wright, an entomologist.

The moth, a European import, probably entered Canada like other imports — through Halifax, on a container ship.

With a wingspan between five and six centimetres, they are easily identified by their bright yellow, black-bordered hindwings. Their forewings are various shades of brown.

At present the moth has spread only in the Atlantic provinces, principally in Nova Scotia, where it has done little noticeable dam-

age because of the type of farming. Tough, established trees in orchards offer little temptation to the hungry insect.

But Wright, who has traced the moth's proliferation in Nova Scotia since 1979, predicts it will only be a matter of years before it spreads west and becomes a destructive pest.

In the sunny science laboratory amid microscopes, Petri dishes and mice-filled jars, Wright tells of the insect's phenomenal population explosion.

Moth traps set up by Agricultural Canada in various parts of Nova Scotia ensnared only two of the species in the summer of 1980. In two years that number had grown to 275. By 1985, the traps were catching some 9,600 — a small fraction of the number that survive each yearly cycle.

Without those natural controls that in Europe make it just one more moth to wave away from the light bulb, in Canada the yellow underwing increases unchecked.

Natural controls, in the form of parasitic wasps and flies, fungus and bacterial diseases, can be introduced by agricultural researchers and reach an effective stage within five years, says Wright.

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CSO: 5420/20

CANADA

BRIEFS

BRITISH COLUMBIA BUDWORM OUTBREAK--British Columbia's largest-ever outbreak of spruce budworm has hit up to 500,000 hectares of forest in the Kamloops area, says Hank Doerksen, director of the Forest Ministry's protection branch, adding that a plan for controlling the pest should be ready by the end of the month. But Mr Doerksen said the western variety of the worm does not have the same potential for damage as its eastern relative, which has destroyed forests in the Maritimes and is actively sprayed with insecticide.  
[Text] [Toronto THE GLOBE AND MAIL in English 11 Feb 87 p A4] /9317

CSO: 5420/16

## EFFORTS TO COMBAT 'CAPE SAINT PAUL'S WILT' DISEASE

Accra PEOPLE'S DAILY GRAPHIC in English 5 Feb 87 p 16

[Text] MR Ibrahim Adam, Under-Secretary for Agriculture (Crops), has assured coconut farmers that the government will use every available means to combat the "Cape Saint Paul's Wilt" disease which has destroyed many coconut farms in the Western Region.

He explained that the government's determination stemmed from the fact that apart from the dependence of many families on the copra industry for their livelihood, the industry is a potential foreign exchange earner.

The Under-Secretary was speaking to a group of coconut farmers on a research farm at Agona-Junction after seeing the damage caused by the disease to some coconut farms in the Busua and Dixcove areas.

The "Cape Saint Paul's Wilt" disease attacks the leaves, nuts, roots and inflorescence of a coconut tree in that order and finally breaks the crown of the tree, leaving only the stump. All these happen within six months.

Meanwhile, the joint Ghana-France Côte d'Ivoire Coconut Research Project has, since 1981, established seven trial farms on which about 27 varieties of coconut, mostly from Côte d'Ivoire, have been planted.

The farms, located at Agona-Junction, Dixcove, Akwidaa, Cape Three Points, Princess Town, Dadwen and Axim, are to help the research project discover varieties resistant to the disease.

Mr Adam said as soon as the appropriate varieties are found, Agricultural Extension Officers will multiply them for supply to farmers.

To a question from the farmers on incentives, Mr Adam announced that the Ministry of Agriculture is departing from the former practice of pricing farm produce in the office.

He explained that henceforth the Ministry would go to the field to negotiate appropriate prices directly with farmers, adding that such prices will become official after government approval.

/13104  
CSO: 5400/119

CROP PEST, DISEASE OUTBREAKS REPORTED NATIONWIDE

BK210923 Hanoi Domestic Service in Vietnamese 0500 GMT 21 Mar 87

[Text] The Plant Protection Department recently issued a communique on the pest and disease situation over the past 10 days:

In the northern provinces, rice blast has continued to develop on about 100,000 hectares of rice plants of the glutinous, Nong Nghiep 8, G-14, A-3, and C-37 varieties in the Bac Bo Delta and former Zone 4. In particular, Nghe Tinh, Thanh Hoa, and Thai Binh provinces each have tens of thousands of hectares; and other provinces, from 4,000 to 5,000 hectares. Brown planthoppers and rice planthoppers have infested some 40,000 hectares in the Bac Bo Delta and former Zone 4 provinces, with the density of infestation ranging from 300 to 400 insects per square meter in many areas. In particular, the pest density has reached as high as 1,000-2,000 per square meter on 5,000 hectares. At present, the second cycle of gray planthoppers has begun to hatch with a high density on the early 5th-month spring rice planting. Paddy flies and rice mealy bugs have been found in large concentrations along canal banks and roadside bushes in Nghe Tinh, with the infestation density as high as thousands per square meter in some localities.

In the southern provinces, brown planthoppers and rice planthoppers have been ravaging 10,000 hectares of rice chiefly in Phu Khanh and Nghia Binh, with the density of infestation ranging from 100 to 150 insects and, in some places, as high as 1,000 per square meter. Of the total affected acreage, some 1,600 hectares are seriously affected. The pest density is low in other localities. Rice yellows is damaging 11,000 hectares of late rice in Tien Giang, Hau Giang, Dong Thap, and Ben Tre, with the incidence rate averaging 10 to 20 percent and, in seriously affected places, 40 percent. Leaf folders have infested 35,000 hectares of late rice in the southern provinces, with the infestation density ranging from 2 to 5 insects per square meter and, in hard-hit places, 10-40 per square meter. In particular, the insects have caused serious damage in Binh Tri Thien and Phu Khanh.

It is forecast that in the period, rice blast will continue to cause widespread damage in the nor . The density of brown planthoppers will increase, especially on the . 5th-month spring rice planting; and limited infestation flare-ups may occur in late March and early April. Various types of rice mealy bugs, especially paddy flies, in Nghe Tinh and Thanh Hoa will

cause serious damage to the early blossoming rice plants unless timely prevention and control efforts are taken. Stem borers and leaf folders will continue to damage the early rice planting.

On vegetables and subsidiary food crops, diamondback moths, flies, root swelling, late blight will continue their infestation.

In the southern provinces, rice yellows and stem borers will cause local damage to the late rice planting; and brown planthoppers and rice planthoppers will cause serious damage in Tuy Hoa, Phu Khanh Province. Rice blast will cause damage here and there to the late rice planting. In particular, leaf folders will cause serious damage in the northern part of Binh Tri Thien.

The Plant Protection Department suggests that the northern provinces closely inspect ricefields and zone off those areas affected by rice blast and brown planthoppers while suspending the application of nitrogen fertilizer, maintaining a sufficient level of water in ricefields affected by rice blast, and using oil and spraying insecticides to control brown planthoppers where they appear in high density. All measures available must be taken to eliminate rice mealy bugs before the rice plants blossom, especially in Thanh Hoa and Nghe Tinh; and manual methods should be used to control stem borers and leaf folders.

The southern provinces should control brown planthoppers, rice planthoppers, leaf folders, stem borers, rice yellows, and rice stemflies where there is a high concentration of them, and clean up ricefields before sowing and transplanting the summer-fall rice.

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CSO: 5400/4343

**WARNING ON AGRICULTURAL INSECT DAMAGE ISSUED**

BK090937 Hanoi Domestic Service in Vietnamese 0500 GMT 9 Mar 87

[Text] According to the Vegetation Protection Department of the Ministry of Agriculture and Food Industry, there has been an outbreak of rice blast, brown leafhoppers, rice planthoppers, and paddy stem borers resulting in damage to tens of thousands of hectares of rice, vegetables, and subsidiary food crops.

Following the spate of late February rainfall, rice blast, brown leafhoppers, and rice planthoppers have spread quickly in various patches of ricefields, mostly in northern provinces and in a number of southern provinces. Thai Binh, Hai Hung, Thanh Hoa, Nghe Tinh, Binh Tri Thien, Nghia Binh, and Quang Nam-Danang Provinces each have up to thousands of hectares of rice ravaged by insects.

It is forecast that in the next 10 days, in the north rice blast will develop in early-transplanted ricefields and in areas planted with main rice crops. Brown leafhoppers, rice planthoppers, and rice caseworms will increase in density causing harm here and there in early-transplanted rice. Stem border larvae will develop in larger numbers. Diamondback moths, green bugs, black cut worms, and late blight will ravage vegetables and subsidiary food crops in certain areas.

In the central coastal provinces, rice blast will also spread fast and damage rice ear stems of plants that are in bloom. Rice planthoppers will cause limited harm to susceptible rice strains while floating worms and rice gall flies will create havoc on late-transplanted rice.

In the Mekong River Delta provinces, stem borers, rice caseworms, and others will develop on the main and late rice plantings.

All provinces and cities must guide production establishments and families in keeping close watch on ricefields to promptly detect and eradicate harmful insects and blights to protect rice, vegetables, and subsidiary food crops.

/12913

CSO: 5400/4340

VIETNAM

BRIEFS

SPREADING OF CROP PESTS, DISEASES--According to the forecasts by the Vegetation Protection Department and the Ministry of Agriculture and Food Industry, during the next few days rice blast and brown planthoppers will spread vigorously over large areas in the north and may cause serious crop damages in some localities. Meanwhile, rice caseworms and stem borers have gradually increased in number in the main areas of the early rice crop. In the south, aphelenchoides oryzae has continued to affect the late rice crop in the Mekong River Delta, while brown planthoppers and rice planthoppers have attacked rice in other localities, mostly in Phu Khanh and Nghia Binh Provinces. The localities concerned should inspect their ricefields and take timely measures to protect them from harmful insects and disease. They should refrain from applying nitrate fertilizer to or drain water from the ricefields stricken by rice blast and brown planthoppers. The central coastal provinces should organize the spraying of chemicals to control brown planthoppers and rice blast in areas where rice plants are about to grow ears. The Mekong River Delta provinces should take action to eradicate stem borers, leaf folders, and aphelenchoides oryzae in the late rice crop areas. They should also clean up cultivable areas to prepare for the planting of the summer-fall rice crop.  
[Text] [Hanoi Domestic Service in Vietnamese 2300 GMT 11 Mar 87 BK]

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